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Bonn zoological Bulletin

Volume 59
2010

formerly: Bonner zoologische Beiträge

ZFMK type catalogues: Vertebrata





Bonn zoological Bulletin (BzB), formerly "Bonner zoologische Beiträge", is published by the Zoologisches Forschungsmuseum Alexander Koenig (ZFMK), Bonn. Two regular issues of BzB are published per year; supplements on focus topics are produced in irregular succession.

Subscription price is 46 € per volume (year), including supplements and shipping costs. For subscription, back issues and institutional exchange, please contact the ZFMK library (ZFMK, Bibliothek, Frau Diane Steinebach, Adenauerallee 160, D-53113 Bonn, Germany, tel. +49 228-9122-216, fax: +49 228-9122-212; d.steinebach.zfmk@uni-bonn.de). The online version of BzB is available free of charge at the ZFMK homepage: <http://www.zfmk.de/web/Forschung/Buecher/Beitraege/index.en.html>.

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Printed and bound by DCM, Werner-von-Siemens-Str. 13, D-53340 Meckenheim, Germany.

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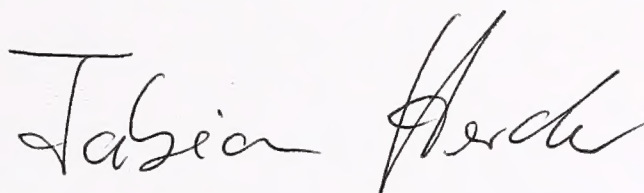
Editorial

This special volume of the Bonn zoological Bulletin (BzB) constitutes the second part of the ZFMK type catalogues. It contains records of vertebrate type specimens housed in the museum's scientific collections, subdivided into the sections Theriology (mammals), Ornithology (birds), Herpetology (amphibians and reptiles), and Ichthyology (fish). Together with the catalogues of the arthropod type specimens published in volume 58 of the BzB, this work provides an overview of the most valuable assets of the museum's scientific collections. Summarizing core data on virtually all animal taxa that are represented by type specimens in Bonn, these catalogues will serve taxonomists as a valuable tool and guide when working in or referring to the institute's extensive collections.

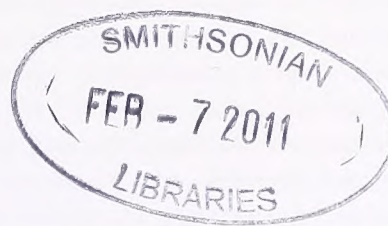
The last comprehensive publication on vertebrate type material in the ZFMK dates back to 1984, and was published on the occasion of the 50th anniversary of Museum Koenig as a public zoological museum. Since then, the number of vertebrate types in the ZFMK increased considerably (birds) or even doubled (mammals, amphibians, reptiles and fishes). This increase underlines the importance of natural history museums as institutions that guarantee the maintenance of and access to scientific material, and highlights the need for continuous, substantial work on basic taxonomy.

I thank all authors who contributed to the two volumes of the type catalogues for their continuous efforts. Compiling such catalogues and verifying the accuracy of the data therein are extremely time-consuming tasks that are often largely underestimated. I am especially happy for having been able to cover virtually all groups of organisms represented by type specimens in the ZFMK, thereby contributing to an inventory of the fascinating animal collections available in Bonn.

With best wishes to all readers, authors and "BzB-Team" members,



Fabian Herder (Editor-in-Chief, Fish Curator at ZFMK)
Bonn, December 2010



Type specimens of mammals (Mammalia) in the collections of the Zoologisches Forschungsmuseum Alexander Koenig, Bonn

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Abstract. An annotated catalogue of type specimens of Mammalia in the collections of the Zoologisches Forschungsmuseum Alexander Koenig in Bonn is given. By the end of 2010, the Bonn collections housed name-bearing types (five syn-, 77 holo-, two lecto- and one neotype) for 85 taxa and para- and paralectotypes for 105 taxa. Casts of rare type specimens of 3 extinct taxa are also listed. The collections also include vouchers for karyotypes and GenBank entries. A lectotype is selected for *Microtus savii niethammericus* Contoli, 2003, and replacement names are proposed for homonyms of two preoccupied taxa, *Apodemus maximus* Thaler, 1972 (Muridae) and *Sciurus vulgaris hoffmanni* Valverde, 1967 (Sciuridae).

Key words. Taxonomy, types, vouchers, chromosomes, genetic sequences, mammal diversity.

INTRODUCTION

Biological collections of the world preserve the voucher specimens on which our knowledge of the biodiversity on our planet is based. Article 72.10 of the Code (ICZN 1999) states that, “Holotypes, syntypes, lectotypes and neotypes are the bearers of the scientific names of all nominal species-group taxa (and indirectly of all animal taxa). They are the international standards of reference that provide objectivity in zoological nomenclature and must be cared as such. They are to be held in trust for science by the persons responsible for their safe keeping.” Recommendation 72F includes the following formulations “Every institution in which name-bearing types are deposited should (2) take all necessary steps for their safe preservation, (3) make them accessible for study, (4) publish lists of name-bearing types in its possession or custody, and (5) so far as possible, communicate information concerning name-bearing types when requested.”

The collections of Mammalia in the Zoologisches Forschungsmuseum Alexander Koenig house more than 90000 specimens representing about 1800 species, i.e. about 33% of the known extant mammalian diversity. These collections form part of the world holdings of mammalian archives (Genoways & Schlitter 1981) and have contributed, among others, to the production of taxonomic standard works such as the current world list of mammalian species (Wilson & Reeder 2005).

The first type catalogue of mammals in the Zoologisches Forschungsmuseum Alexander Koenig was published more than 25 years ago (Hutterer 1984). Here we present an updated annotated list of the name-bearing types (holotype, syntype, lectotype, neotype), but also of paratypes and paralectotypes, as these form part of the original type series and are available for the selection of neotypes, if required (Article 75, Recommendation 75A, ICZN 1999). In a few cases we have also listed casts of type specimens from other institutions in order to facilitate access to the types of some extinct species. The collections also include vouchers for chromosome counts and for genetic sequences. If available, such information has been mentioned but it was not possible to compile a full list of such voucher specimens. As GenBank entries already play an important role in the study of mammalian phylogeny and taxonomy, cross-references to the vouchers on which the genetic sequences were based will become more and more important in order to ensure scientific objectivity and to enable verification of correctness of specimen identifications when indicated. Figures listed for the respective original description of a taxon are all figures in that publication which show features of the new taxon.

The present list is compiled in the style of other modern examples such as Lawrence (1993), Turni et al. (2007) and Turni & Kock (2008). The systematics, sequence of or-

ders and families within orders follows Wilson & Reeder (2005). Likewise, the taxonomy largely follows the respective chapters in Wilson & Reeder (2005), particularly those on soricomorphs (Hutterer 2005), rodents (Musser & Carleton 2005), glirids (Holden 2005), sciurids (Thorington & Hoffmann 2005) and artiodactyls (Grubb 2005). We included no figures in this catalogue as photographs of many of the ZFMK type specimens are available online through the Global Biodiversity Information Facility (http://www.biologie.uni-ulm.de/cgi-bin/query_all/query_all.pl?lang=d&pr=gbif-v1).

Abbreviations for museum collections used:

AMNH = American Museum of Natural History, New York, USA,
 BMNH = The Natural History Museum, London, UK,
 CM = Carnegie Museum, Pittsburgh, USA,
 FMNH = Field Museum of Natural History, Chicago, USA,
 HNHM = Hungarian Natural History Museum, Budapest, Hungary,
 HZM = Harrison Zoological Museum, Sevenoaks, UK,
 IZEA = Institut de zoologie et d'écologie animale, Lausanne, Switzerland,
 MNHN = Museum National d'Histoire Naturelle, Paris, France,
 NMP = National Museum of the Philippines, Manila, The Philippines,
 NMW = Naturhistorisches Museum Wien, Vienna, Austria,
 QM = Queensland Museum, Brisbane, Australia,
 PBS = Paimpont Biological Station of Rennes University, France,
 RMCA = Royal Museum for Central Africa, Tervuren, Belgium,
 SMF = Senckenberg Museum, Frankfurt, Germany,
 SMNS = Staatliches Museum für Naturkunde, Stuttgart, Germany,
 TM = Transvaal Museum, now Ditsong National Museum of Natural History, Pretoria, South Africa,
 ZFMK = Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany,
 ZIN = Zoological Institute of the Academy of Sciences, Moscow, Russia,
 ZMB = Zoologisches Museum der Humboldt-Universität, Berlin, Germany.

CATALOGUE OF TYPE SPECIMENS

MONOTREMATA

Ornithorhynchidae

Obdurodon dicksoni Archer, Jenkins, Hand, Murray & Godthelp, 1992

In: Platypus and Echidnas (Augee ML, ed.): 16, figs. 1–8
Material. ZFMK 95.167, cast of holotype skull QM F20568, Middle Miocene sediments of Riversleigh, Australia.

Current status. *Obdurodon dicksoni* Archer, Jenkins, Hand, Murray & Godthelp, 1992.

Comments. Cast donated by I. Rocek in 1995. A full reconstruction of skull and dentary was provided by Musser & Archer (1998).

AFROTHERIA

Chrysochloridae

Eremitalpa granti namibensis Bauer & J. Niethammer, 1960

Bonn. zool. Beitr. 10: 241, fig. 2 (10 Jan)

Holotype. ZFMK 59.513, cranium and mandible taken from owl pellets, in good condition; Sossus Vley, Namib Desert, Namibia, collected by G. Niethammer, Feb 1959, field no. 47.

Paratypes. ZFMK 59.514 (40 skulls), and further 16 uncatalogued skulls plus uncounted postcranial elements, all from the same locality and collector.

Current status. *Eremitalpa granti namibensis* Bauer & J. Niethammer, 1960.

Comments. Further paratypes are in the AMNH, NMW and TM.

MACROSCELIDEA

Macroscelididae

Elephantulus intufi omahekensis Lehmann, 1955

Bonn. zool. Beitr. 6: 171

Holotype. ZFMK 55.74, female, skin and skull; Kl. Okaputa, Namibia, collected by W. Hoesch, 16 Oct 1954, field no. M. 1130.

Paratypes. ZFMK 55.78, 55.120–55.125, 4 males, 3 females, skins and skulls, same locality and collector as holotype, 14–18 Oct 1954.

Current name. *Elephantulus intufi* (A. Smith, 1836).

CINGULATA

Dasypodidae

Cabassous chacoensis Wetzel, 1980

Ann. Carnegie Mus. 49: 335, fig. 2 (5 Sept)

Paratype. ZFMK 60.317, adult female, skin and skull; Filadelfia, Paraguay, collected by J. Unger, 10 Dec 1958, field no. 448.

Current status. *Cabassous chacoensis* Wetzel, 1980.

Comments. Holotype CM 67067, taken at 5–7 km W Estancia Juan de Zalazar, Depto. Presidente Hayes, Paraguay (Wetzel 1980).

LAGOMORPHA

Ochotonidae

Lagomys ater Eversmann, 1842

Addenda ad Celeberrimi Pallasii Zoographiam Rosso-Asiaticam, Fasc. 3: 3.

Material. Possible paralectotype (see below), ZFMK 88.64, juvenile female, mount and skull (extracted in 1988); Russia, Altai, sold by J.G.W. Brandt 1851 to the Zoological Institute Heidelberg (No. 391), exchanged in 1988.

Current name. *Ochotona alpina atra* (Eversmann, 1842) or *Ochotona a. alpina* (Pallas, 1773); see Lisovsky (2003).

Comments. Johann Georg Wilhelm Brandt (1794–1856) opened a warehouse for natural history specimens in Hamburg in 1827. He had world-wide connections to travelers and collectors (Stresemann 1967). It is likely, but not certain, that he purchased specimens from Eduard Eversmann (1794–1860), a German explorer and scientist who held a professorship at the University of Kazan in Russia for several decades and who sold specimens to German museums such as the Berlin Museum (Gebhard 1964). *Lagomys ater* was collected in the Altai Mountains, as stated on the label of the ZFMK specimen. Lisovsky (2003) discussed the status of the Altai pika *Ochotona alpina* (Pallas, 1773) and the type locality and type series of *O. a. atra* (Eversmann, 1842). There are three specimens of *Ochotona a. atra* collected by Eversmann in 1841 in the ZIN. Yakhontov & Formozov (1992) designated ZIN 84398 as lectotype, and the other two specimens are paralectotypes. Provided that Eversmann distributed other specimens from his type series among German museums, ZFMK 88.64 could be a further paralectotype.

Leporidae

Pronolagus randensis waterbergensis Hoesch & Lehmann, 1956

Bonn. Zool. Beitr. 7: 32, fig. 6

Holotype. ZFMK 34.144, male, skin and skull; Otjosongombe, Waterberg, Namibia, caught by W. Hoesch, 1 June 1934, field no. XXXI.

Current name. *Pronolagus randensis caucinus* Thomas, 1929 (Hoffmann & Smith 2005).

ERINACEOMORPHA

Erinaceidae

Erinaceus algirus girbaensis Vesmanis, 1981

Bonn. zool. Beitr. 31: 207, figs. 1–4 (29 Jan 1981)

Holotype. ZFMK 79.464, skin and skull; Djerba Island, Tunisia, collected May 1932, purchased from Fritsche.

Paratype. ZFMK 79.463, skin and skull, same data as holotype.

Current status. *Atelerix algirus girbaensis* (Vesmanis, 1981) (Corbet 1988).

SORICOMORPHA

Soricidae

Congosorex verheyeni Hutterer, Barriere & Colyn, 2001
Bull. Inst. Royal Sci. Nat. Belg., Biol. 72, Suppl.: 10, figs. 1–6 (20 Dec 2001)

Holotype. ZFMK 99.932, female, specimen preserved in spirit and skull; Mbomo, Parc National d'Odzala, Republic of the Congo, collected by members of the ECOFAC team, 19 Oct 1996, field no. R16761.

Current name. *Congosorex verheyeni* Hutterer, Barriere & Colyn, 2002.

Comments. Paratypes in MNHN, RMCA and in PBS.

Congosorex phillipsorum Stanley, Rogers & Hutterer, 2005

J. Zool., London 265: 271, figs. 3–8

Paratype. ZFMK 2009.631 (formerly FMNH 169493), alcoholic specimen, skull removed; West Kilombero Scarp, 2062 m, Udzungwa Mts, Iringa District, Iringa Region, Tanzania; collected by K.M. Howell, 15 Jul 2000, field no. KMH 19125.

Current name. *Congosorex phillipsorum* Stanley, Rogers & Hutterer, 2005.

Comments. Holotype in FMNH.

Crocidura arabica Hutterer & Harrison, 1988

Bonn. zool. Beitr. 39: 64, figs. 3, 5, 6

Paratype. ZFMK 88.14, cranial fragment taken from owl pellet; near Tawi Atair, Jebel Samhan, Dhofar, Oman, collected by M.D. Gallagher, 9 Apr 1977; donated by D.L. Harrison (HZM 19.8767).

Current status. *Crocidura arabica* Hutterer & Harrison, 1988.

Crocidura ariadne Pieper, 1979

Bonn. zool. Beitr. 29: 282, figs. 1–6 (30 Jan)

Holotype. ZFMK 78.100, cranial fragment taken from owl pellet; Agia Pnevma, Crete, Greece, collected by Harald Pieper, 23 Sept 1973.

Current status. *Crocidura suaveolens canae* (Hutterer 1981).

Crocidura batakorum Hutterer, 2007

Lynx (Praha) n.s. 38: 11, figs. 5–8

Holotype. ZFMK 96.411, old adult male(?), specimen in spirit, skull extracted, part of left braincase damaged; Tanabag River Valley near village Kalabayog (09°44'N, 118°43'E), ca. 60 km N Puerto Princesa, Palawan, Republic of the Philippines, 200 m, collected by S. Büchner, 10 Mar 1992.

Current name. *Crocidura batakorum* Hutterer, 2007.

Comments. Status confirmed by Esselstyn et al. (2009).

Crocidura (bottegi) obscurior Heim de Balsac, 1958

Mém. Inst. fr. Afr. noire 53: 328, fig. 24

Paratype. ZFMK 59.499, female preserved in spirit, skull extracted and lost; “Fôrèt Zièla”, 500 m, Mount Nimba, Guinea, collected by M. Lamotte, 24 Oct 1956, collector's no. 59.

Current name. *Crocidura obscurior* Heim de Balsac, 1958

Comments. Specimen donated to M. Eisentraut by H. Heim de Balsac. Holotype probably in MNHN.

Crocidura canariensis Hutterer, López-Jurado & Vogel, 1987

J. nat. Hist. 21: 1354, figs. 2–4

Holotype. ZFMK 86.75 (transferred to Museo Canario at Las Palmas in 1987), adult male, specimen preserved in spirit, skull and mandibles extracted; offspring of animals collected at La Tiscamanita, N Tuineje, Fuerteventura, Canary Islands, Spain, by L. F. López-Jurado, 30 Jan 1985. Chromosome slides (IZEA 2331; Hutterer et al. 1990, fig. 2) and frozen tissue kept at IZEA, Lausanne.

Paratypes. ZFMK 86.76, 86.370, two females in alcohol, same data as holotype; ZFMK 86.72–74, three skeletons, same data as holotype; ZFMK 86.371, skin from La Oliva, Fuerteventura, Nov 1984; ZFMK 86.372, skin from Malpais de los Arravales, Fuerteventura; ZFMK 86.374–

380, skulls from owl pellets collected near Gran Tarajal, Fuerteventura, all collected by L. F. López-Jurado.

Current name. *Crocidura canariensis* Hutterer, López-Jurado & Vogel, 1987.

Comments. Holotype ZFMK 86.75 is voucher for the GenBank sequences EF525043 and EF525160 (IZEA 2331, Dubey et al. 2008). Paratype ZFMK 86.76 is voucher for the chromosome count $2n = 36$, $NF = 56$, $NFa = 52$ in Hutterer et al. (1992), table 1 (IZEA voucher 2332).

Crocidura flavescens bueae Heim de Balsac & Barloy, 1966

Mammalia 30: 631

Paratype. ZFMK 78.004, skin and skull of a juvenile female; garden of mission, Buea, ca. 1000 m, Cameroon, collected by M. Eisentraut, 26 Jan 1954, field no. 54, received in exchange from SMNS in 1978 (catalogue no. SMNS 5561)

Current name. *Crocidura olivieri bueae* Heim de Balsac & Barloy, 1966.

Comments. The holotype out of the same series (“femelle, No. 53, Missionsgarten, Buea (Eisentraut ...)”) was in the working collection of Heim de Balsac and today is in the MNHN, Paris. In their short description the authors stated “Cotypes à choisir parmi les specimens de Buea, au Musée de Bonn”. The series collected by Eisentraut near Buea in 1954 and 1957 and studied by Heim de Balsac ended up at the SMNS, though. Apart from the paratype in the ZFMK collection which was received in exchange in 1978, there are three more paratypes in the SMNS with the collection nos. SMNS 5559 (field no. 35), 5560 (field no. 49) and 6561 (field no. 11).

Crocidura flavescens hansruppi Hutterer, 1981

Bonn. zool. Beitr. 31: 226, fig. 3 (29 Jan)

Paratype. ZFMK 80.265, female, skin and skull; Jimma, Kaffa Province, Ethiopia, collected by H. Rupp, 23 Aug 1973, collector's no. 477; received in exchange from Stuttgart Museum (SMNS 23703), Apr 1980.

Current name. *Crocidura olivieri* group, status unresolved (Hutterer 2005).

Comments. This form represents a dark chocolate-brown forest form of the *C. olivieri* group in Ethiopia, the variation of which is still poorly understood.

Crocidura lamottei elegans Hutterer, 1986

Cimbebasia, Ser. A., 8: 29

Holotype. ZFMK 76.009, male, skin and skull; Bandia, Senegal, collected by W. Böhme, W. Hartwig and H. Ulllenbruch, 9–20 Jan 1976, field no 279.

Paratype. ZFMK 76.010, female, skin and skull, same data as holotype, field no. 234.

Current name. *Crocidura lamottei elegans* Hutterer, 1986.

Crocidura lanosa Heim de Balsac, 1968

Biol. Gabonica 4: 309, figs. 1–4

Paratypes. ZFMK 89.458, 89.460, unsexed skins and skulls; Uwinka, Rwanda, collected by U. Rahm, 10 Jun 1962, field no. E665, E657; ZFMK 89.459, female, skin and skull; Lemera, Kivu province, Democratic Republic of the Congo, collected by U. Rahm, 19 Oct 1962. Specimens donated by U. Rahm in 1989.

Current name. *Crocidura lanosa* Heim de Balsac, 1968.

Crocidura littoralis stenocephala Heim de Balsac, 1979
Säugetierkundl. Mitt. 27: 258, figs. 4–6 (Nov)

Paratype. ZFMK 79.141, female, skin and skull; Kahuzi Biega National Park, Kivu, Democratic Republic of the Congo, collected by F. Dieterlen, 15 Nov 1972, field no. K 2544; received in exchange from SMNS (SMNS catalogue no. 22806).

Current name. *Crocidura stenocephala* Heim de Balsac, 1979 (Hutterer 1982).

Comments. Holotype and remaining paratypes in SMNS. The species was described in Dieterlen & Heim de Balsac (1979).

Crocidura manengubae Hutterer, 1982

Bonn. zool. Beitr. 32: 241, figs. 1, 4 (Jan)

Holotype. ZFMK 81.443, male, skin and skull; Lake Manenguba, 1800 m, Bamenda Highlands, Cameroon, collected by M. Eisentraut and assistants, 28 Dec 1966, field no. 306.

Paratype. ZFMK 69.409, female, skin and skull; same locality and collectors, 3 Jan 1967, field no. 321.

Current name. *Crocidura manengubae* Hutterer, 1982.

Crocidura osorio Molina & Hutterer, 1989

Bonn. zool. Beitr. 40: 86, figs. 2, 3, 8, 13

Paratypes. ZFMK 89.54, specimen in spirit, skull extracted; near Teror, Gran Canaria, Spain, collected by staff of the Finca de Osorio, 1988, field no. 3.

Current name. *Crocidura russula osorio* Molina & Hutterer, 1989 (Hutterer 2005).

Comments. Holotype (field no. 42) deposited in the Museo Canario, Las Palmas de Gran Canaria (Molina, in litt. 2009).

Crocidura panayensis Hutterer, 2007

Lynx (Praha) n.s. 38: 6, figs. 1–4

Holotype. ZFMK 2003.1091, adult female, specimen in spirit, skull extracted; Sibaliw, Municipality of Buruanga (11°49.188'N, 121°58.064'E), NW peninsula, Panay, Republic of the Philippines, collected by E. Curio, 13 May 2000; transferred to the NMP (now NMP 5207).

Paratypes. ZFMK 2003.1092 – 2003.1094 (1 male, 2 females in spirit, skulls extracted), same locality (450–480 m) and collector, obtained 2001–2003.

Current name. *Crocidura panayensis* Hutterer, 2007.

Comments. Status confirmed by Esselstyn et al. (2009).

Crocidura suaveolens balcanica Ondrias, 1971

Z. Säugetierkd. 35: 379

Paratypes. ZFMK 66.337, female, skin and skull; Sarajevo, Bosnia and Herzegovina, former Yugoslavia, collected by G. Witte, 26 June 1962, field no. 383; ZFMK 66.335, 66.336, 1 female, 1 male, skins and skulls; Ombla Valley, Croatia, former Yugoslavia, collected by G. Witte, 7 and 9 June 1962, field nos. 371, 380.

Current name. *Crocidura suaveolens mimula* Miller, 1901; see Dubey et al. (2007).

Comments. The holotype was collected near Kryonerion, Attica, Greece.

Crocidura sicula aegatensis Hutterer, 1991

Bonn. zool. Beitr. 42: 247

Holotype. ZFMK 89.392, adult male, skin and skull; Casa Sarraceno, Marettime, Egadi Islands, Italy, collected by F. Krapp, 23 Mar 1969, field no. 35/69.

Paratypes. 6 specimens, listed in detail by Krapp (1970); 1 from Levanzo (ZFMK 89.393, skull), Favignana (ZFMK 89.394–397, 4 skulls, ZFMK 89.398, skin and skull).

Current name. *Crocidura sicula aegatensis* Hutterer, 1991 (Hutterer 2005).

Crocidura sicula calypso Hutterer, 1991

Bonn. zool. Beitr. 42: 247

Holotype. ZFMK 89.418, adult male, specimen preserved in spirit and extracted skull; Is-Saqwi, Xlendi Valley, Gozo (Malta), collected by S. Schembri and D.M. Johnson, 22 Oct 1986.

Paratypes. ZFMK 89.400, specimen in spirit, skull removed, same data as holotype; ZFMK 89.401–417, 2 uncatalogued, 20 skulls from owl pellets, Gozo, collected by J. Sultana, Oct 1981.

Current name. *Crocidura sicula calypso* Hutterer, 1991 (Hutterer 2005).

Comments. Further paratypes are in the collection of P. J. Schembri, Malta, and in IZEA.

Crocidura suaveolens bruecheri Lehmann, 1977

Ric. Biol. Selvag., Suppl., 5: 198, fig. 2 (May)

Holotype. ZFMK 77.665, male, skin and skull; Tiriolo, Catanzaro, Calabria, Italy, collected by E. von Lehmann, 6 Mar 1977, field no. 18.

Paratypes. 12 skins and skulls from Catanzaro Province: 3 males, 4 females, ZFMK 77.664, 77.666–77.671, Tiriolo; 3 males, ZFMK 77.661–77.663, Marcellinara; male, ZFMK 77.660, Catanzaro; male, ZFMK 77.672, near Petrizia; all collected by E. von Lehmann, Mar 1977.

Current name. *Crocidura suaveolens mimula* Miller, 1901; see Dubey et al. (1997).

Comments. Described as *C. s. brücheri* (Lehmann 1977).

Crocidura tansaniana Hutterer, 1986

Bonn. zool. Beitr. 37: 27, fig. 3c

Holotype. ZFMK 85.194, adult male, skin and skull; Amani, E Usambara Mountains, Tanga, Tanzania, collected by S.R.Telford, 17 June 1984, field no. SRT-TZ-12078.

Current name. *Crocidura tansaniana* Hutterer, 1986.

Crocidura telfordi Hutterer, 1986

Bonn. zool. Beitr. 37: 28, fig. 3d

Holotype. ZFMK 85.195, adult male, skin and skull; Morningside, 1150m, Uluguru Mountains, Morogoro, Tanzania, collected by S.R.Telford, 17 Nov 1983, field no. SRT-TZ-4806.

Current name. *Crocidura telfordi* Hutterer, 1986.

Comments. A further skin without skull (SRT-TZ-2397) from Bondwa Peak, Uluguru Mountains, was mentioned in the original description (Hutterer 1986) but excluded from the type material.

Crocidura yankariensis Hutterer & Jenkins, 1980

Bull. Brit. Mus. (Nat. Hist.) Zool. 39: 305, figs. 1–7 (18 Dec)

Paratype. ZFMK 80.805, skull without occipital, with both mandibles, from pellet; Futuk (9°50'N, 10°55'E), Bauchi State, Nigeria, collected by A. Demeter, 7 Aug 1978, field no. 55.

Current name. *Crocidura yankariensis* Hutterer & Jenkins, 1980.

Comments. Holotype in HNHM.

Myosorex eisentrauti Heim de Balsac, 1968

Bonn. zool. Beitr. 19: 20, figs. 1–6 (10 Apr)

Holotype. ZFMK 69.372, male, skin and skull; Pico de Santa Isabel, 2400 m, Bioko, Equatorial Guinea, collected by M. Eisentraut, 14 Oct 1966, field no. 41.

Paratypes. ZFMK 69.373, female, skin and skull, same data as holotype, field no. 40; ZFMK 69.374, male, skin and skull, Refugium, 200 m, 5 Oct 1966, field no. 2; ZFMK, without catalogue no. (field no. 9), skull (skin given to Pater Basilio), Refugium, Bioko, 6 Oct 1966, all collected by M. Eisentraut.

Current name. *Myosorex eisentrauti* Heim de Balsac, 1968 (Hutterer 2005).

Myosorex eisentrauti okuensis Heim de Balsac, 1968

Bonn. zool. Beitr. 19: 24, figs. 4, 5 (10 Apr)

Holotype. ZFMK 69.376, male, skin and skull; Lake Oku, Lager IV, 2100 m, Bansa Highlands, Cameroon, collected by M. Eisentraut, 25 Jan 1967, field no. 410.

Paratypes. 11 skins and skulls, ZFMK 69.377–69.389, Lake Oku (field nos. 460, 446, 377, 346, 461, 376, 340,

345, 416); Lake Manenguba (field nos. 277, 320), all collected by M. Eisentraut in Jan and Feb 1967.

Current name. *Myosorex okuensis* Heim de Balsac, 1968 (Hutterer 2005).

Comments. Paratype ZFMK 69.389 (field no. 447) was given to the Transvaal Museum Pretoria in Aug 1981. Additional paratypes were in the working collection of H. Heim de Balsac and subsequently passed to MNHN.

Myosorex eisentrauti rumpii Heim de Balsac, 1968

Bonn. zool. Beitr. 19: 27, figs. 4–6 (10 Apr)

Holotype. ZFMK 69.375, male, skin and skull; Lager V near Dikume, 1100 m, Rumpi Hills, Cameroon, collected by M. Eisentraut, 28 Feb 1967, field no. 568.

Current name. *Myosorex rumpii* Heim de Balsac, 1968 (Hutterer 2005).

Myosorex kihaulei Stanley & Hutterer, 2000

Bonn. zool. Beitr. 49: 20, figs. 1, 2 (30 Dec)

Paratype. ZFMK 2009.633, female, skin and skull; 4 km W 5 km N Chita, 1460 m, 8°28'30"S, 35°54'25"E, Udzungwa Scarp Forest Reserve, Udzungwa Mts, Kilombero District, Morogoro Region, Tanzania, collected by W.T. Stanley, 14 Aug 1995, field no. WTS 1877. Formerly FMNH 155611.

Current name. *Myosorex kihaulei* Stanley & Hutterer, 2000.

Neomys anomalus rhenanus Lehmann, 1976

Bonn. zool. Beitr. 27: 160 (Oct)

Holotype. ZFMK 71.62, male, skin, skull lost; Firnbach near Datzeroth, Westerwald, Germany, collected by E. von Lehmann, 6 Apr 1971, field no. 360.

Paratypes. ZFMK 67.126, male, skin and skull, Dasburg, Eifel, Germany, collected by J. Olert, 9 July 1967; ZFMK 61.440, 62.116, 70.110, 70.111, 4 skins and skulls, Rotenboden, Liechtenstein, collected by E. von Lehmann, 27 July 1961, 25 Aug 1962, 23 May 1970; ZFMK 71.334, 71.335, 2 skins and skulls, Gamander, Liechtenstein, collected by J. Olert, 5 Nov 1971; in addition several skulls from pellets (not catalogued).

Current name. *Neomys anomalus* Cabrera, 1907.

Comments. Further paratypes from the private collection of W. Issel, Augsburg, are now in SMNS.

Neomys fodiens niethammeri Bühler, 1963

Bonn. zool. Beitr. 14: 169

Neotype. ZFMK 94.525, female, skin, skull and skeleton; islet below karstic spring, Ramales de la Victoria, Cantabria, N Spain, collected by P. Bühler, 18–19 Sept 1970 (in captivity until 28 Dec 1970).

Current name. *Neomys fodiens niethammeri* Bühler, 1963.

Comments. Bühler (1996: 312) designated a neotype because the holotype, an isolated mandible, was lost. The

taxon may eventually deserve species status (López-Fuster et al. 1990).

Paracrocridura schoutedeni camerunensis Heim de Balsac, 1960

Bonn. Zool. Beitr. 10: 204, fig. 3 (10 Jan)

Holotype. ZFMK 61.760, male, skin and skull; Lager V, ca. 600 m, above Mueli, N side of Mount Cameroon, Cameroon, collected by M. Eisentraut, 7 Feb 1958, field no. 568.

Current name. *Paracrocridura camerunensis* Heim de Balsac, 1960 (Hutterer, unpubl.).

Sorex araneus hülleri Lehmann, 1966

Säugetierkundl. Mitt. 14: 131, fig. 2

Holotype. ZFMK 64.169, male, skin and skull; Naturschutzgebiet Elmpter Schwalmbruch, Kreis Erke- lenz, Bezirk Aachen, North Rhine-Westphalia, Germany, collected by E. von Lehmann, 7 Apr 1964, field no. 29.

Paratypes. 6 males, 2 females (ZFMK 64.168, 64.170, 64.171, 64.577-580, 64.1193), same collector and locality.

Current name. *Sorex araneus huelleri* Lehmann, 1966.

Comments. Two paratypes (ZFMK 64.1192, 64.1194) were exchanged with NMW in May 1979.

Sorex araneus silanus Lehmann, 1961

Zool. Anz. 167: 214

Holotype. ZFMK 60.339, adult male, skin and skull; Camigliatello Silano, Calabria, Italy, collected by E. von Lehmann, 9 Aug 1960, field no. 71.

Paratypes. 4 males, 3 females, 1 indiv. sex undetermined, ZFMK 60.336-60.338, 60.340-60.344, all same locality and collector.

Current name. *Sorex antinorii* Bonaparte, 1840.

Comments. Taxonomy discussed in detail by Brünner et al. (2002).

Sorex araneus wettsteini Bauer, 1960

Bonn. zool. Beitr. 11: 178 (30 Oct)

Paratypes. ZFMK 79.544 (male), 79.545 (female), skins and skulls; siltation zone of Neusiedler See, Neusiedl am See, Burgenland, Austria, collected by K. Bauer, 19 May and 11 Apr 1951, field nos. KB 51/105, KB 51/44. Obtained in exchange from NMW in 1979.

Current name. *Sorex araneus wettsteini* Bauer, 1960.

Sorex minutus becki Lehmann, 1963

Jb. Histor. Vereins Fürstentum Liechtenstein 62: 187

Holotype. ZFMK 56.1004, male, skin and skull, Silum, Liechtenstein, collected by E. von Lehmann and H.-J. Kuhn, 11 Aug 1956.

Paratypes. ZFMK 49.43, male, skin and skull; Osterach Valley, Allgäu, Germany, 7 Sept 1949; ZFMK 50.144, 50.145, 2 males, skins and skulls, Bodman, Lake Con-

stance, Germany, 9 May 1949, all collected by G. Heinrich.

Current name. *Sorex minutus* Linnaeus, 1866.

Sorex etruscus Savi, 1822

Nuovo Giornale de Letterati 1: 60, plate on p. 70

Syntypes. ZFMK 78.513, adult female, in spirit, skull removed; Italy, earlier than 1846, sent to Göttingen Museum by Paolo Savi (Berthold 1850: 13, "Gesch. des Hrn Prof Savi" = donated by prof. Savi), where it was catalogued in 1846. Inscription on specimen label: "Crocridura etrusca (Savi) / 1846 / Savi". ZFMK 78.514, juvenile, complete specimen in spirit. Pisa, Italy, no date, sent to Göttingen Museum by Paolo Savi; has 2 labels, a) one old and faded, "Sorex etruscus ...", b) a newer one, approximately about 1850, "a. Crocidura etrusca / A.S. / Savi / Pisa".

Current name. *Suncus etruscus* (Savi, 1822).

Comments. Both specimens were detected on the occasion of the take-over of parts of the mammal collection of the old Göttingen Museum by ZFMK in 1978. The meaning of "A.S." on the label of the second specimen is "Alte Sammlung" (=old collection). Therefore it already was in the old collection when its first inventory was compiled about 1846.

Sylvisorex akaibei Mukinzi, Hutterer & Barrière, 2009

Mammalia 73: 130, figs. 2, 3

Paratype. ZFMK 2006.168 (R27986), young adult; Masako Forest Reserve (00°36.304'N, 25°15.389'E), 388 m, Kisangani area, Tshopo district, NW Democratic Republic of the Congo, collected by I. Mukinzi and D. Amundala, 2 Jun 2005.

Current name. *Sylvisorex akaibei* Mukinzi, Hutterer & Barrière, 2009.

Comments. Holotype in RCMA.

Sylvisorex granti camerunensis Heim de Balsac, 1968

Bonn. zool. Beitr. 19: 35, figs. 10, 11 (10 Apr)

Holotype. ZFMK 69.358, male, skin and skull; Lager III, 1800 m, Lake Manenguba, Cameroon, collected by M. Eisentraut, 18 Dec 1966, field no. 271.

Paratypes. 6 skins and skulls, ZFMK 69.359, 69.361-69.364, one specimen without catalogue no.; Lake Manenguba (field nos. 305, 295, 280), Dec 1966; Lake Oku, 2100 m (field nos. 354, 363, 375), Jan 1967, all collected by M. Eisentraut.

Current name. *Sylvisorex camerunensis* Heim de Balsac, 1968; see Hutterer et al. (1992).

Sylvisorex morio isabellae Heim de Balsac, 1968

Bonn. zool. Beitr. 19: 31, figs. 8, 9 (10 Apr)

Holotype. ZFMK 69.365, male, skin and skull; Refugium, 2000 m, Bioko, Equatorial Guinea, collected by M. Eisentraut, 10 Nov 1966, field no. 32.

Paratypes. 3 skins, 2 skulls, ZFMK 69.366, 69.367, one specimen without catalogue no., Refugium (field no. 35), Bioko, Oct 1966; Pico de St. Isabel, Bioko, 2400 m (field no. 44), 14 Oct 1966, all collected by M. Eisentraut.

Current name. *Sylvisorex isabellae* Heim de Balsac, 1968; see Hutterer (2005).

Sylvisorex corbeti Hutterer & Montermann, 2009

Bonn. zool. Beitr. 56: 202, figs. 1, 2, 4, 5 (30 Sept)

Holotype. ZFMK 88.91, young adult female, flat skin and skull; near Chappal Waddi (07°01' N, 11° 41' E), 1900 m, Gotel Mountains, SE Nigeria, collected by G. Nikolaus, 23 Mar 1988, field no. GN 60.

Current name. *Sylvisorex corbeti* Hutterer & Montermann, 2009.

Comments. Previously identified as *S. ollula* by Hutterer et al. (1992).

Sylvisorex silvanorum Hutterer, Riegert & Sedláček, 2009
Bonn. zool. Beitr. 56: 151, figs. 1–3 (30 Sept)

Holotype. ZFMK 74.430, young adult female, skin and partial skull; near Lake Bambili, Mount Lefo, Bafut Ngemba F. R. (5°55' N, 10°14' E), 1800–1900 m, Bamenda Highlands, NW Province, Cameroon, collected by W. Böhme and W. Hartwig, 7 Mar 1974, field no. 98.

Paratypes. ZFMK 2003.1103, 2003.1104, 2 incomplete skulls, removed from pellets of *Tyto capensis*; slope of the lower Bambili volcano craters (5°55' N, 10°14' E), 2400 m, about 8 km SE city of Bamenda, Bamenda Highlands, NW Province, Cameroon, collected by J. Riegert and O. Sedláček, Nov 2001.

Current name. *Sylvisorex silvanorum* Hutterer, Riegert & Sedláček, 2009.

Sylvisorex vulcanorum Hutterer & Verheyen, 1985

Z. Säugetierkd. 50: 267, figs. 1, 2

Paratype. ZFMK 85.193, specimen in spirit; Karisoke (0°28' S, 29°29' E), 3100 m, Parc National des Volcans, Rwanda, collected by W. Verheyen, 1982, field no. 3738.

Current name. *Sylvisorex vulcanorum* Hutterer & Verheyen, 1985.

Talpidae

Talpa caeca steini Grulich, 1971

Acta Sc. Nat. Brno, Prague 5 (9): 38, figs. 1–4, 6–7, plate II

Paratypes. ZFMK 66.307–66.316, 9 males, 1 female, skins and skulls; Lovćen, Montenegro, former Yugoslavia, collected by G. Witte, 22–28 May 1962, field nos. 350–360.

Current name. *Talpa caeca steini* Grulich, 1971; see Hutterer (2005).

Talpa romana wittei Capolongo, 1986

Bonn. zool. Beitr. 37: 252

Holotype. ZFMK 66.298, male, skin and skull; Monte Gargano, Apulia, Italy, collected by G. Witte, 28 July 1961, field no. 216.

Paratypes. ZFMK 66.291–297, 66.299–302; 9 males, 2 unsexed skins and skulls, all Monte Gargano, collected by G. Witte, May–June 1961.

Current name. *Talpa romana wittei* Capolongo, 1986; see Hutterer (2005).

Talpa stankovici montenegrina Kryštufek, 1994

Bonn. zool. Beitr. 45: 14

Paratypes. ZFMK 93.400 (male), 93.401 (female), flat skins and skulls; sandy beach 5 m from the sea, Ulcinj, Montenegro (former Yugoslavia), collected by B. Kryštufek & A. Stangelj, 14 Nov 1983, field nos. 3206, 3207.

Current name. *Talpa stankovici montenegrina* Kryštufek, 1994.

Comments. Donated by B. Kryštufek 1993.

CHIROPTERA

Pteropodidae

Rousettus aegyptiacus occidentalis Eisentraut, 1960

Bonn. zool. Beitr. 10: 231, figs. 8, 13 (10 Jan)

Holotype. ZFMK 59.450, male, skin and skull; Mueli, ca. 600 m, N side of Mount Cameroon, Cameroon, collected by M. Eisentraut, 20 Feb 1958, field no. 648.

Paratypes. 28 skins and skulls, 11 specimens in spirit; Lager V, above Mueli, 600 m (ZFMK 61.576, 61.578, 61.582, 61.584–61.586, 61.595–61.597, 61.600, 61.602), Feb 1958; Lager I, above Buea, 1600 m, Mount Cameroon (ZFMK 61.592, 61.593, 63.209a–f), Nov 1957; Lager VI, Isobi, 30 m, W side of Mount Cameroon (ZFMK 61.577, 61.580, 61.581, 61.583, 61.587–61.591, 61.594, 61.598, 61.599, 63.208a–e), Mar 1958; Lager IV, near Lake Koto Barombi, 120 m, N side of Mount Cameroon (ZFMK 61.575, 61.579, 61.601), Jan 1958; all collected by M. Eisentraut.

Current name. *Rousettus aegyptiacus unicolor* Gray, 1870; see Koopman (1966).

Rhinolophidae

Hipposideros camerunensis Eisentraut, 1956

Zool. Jb., Syst. Ökol. 84a: 526, figs. 6–8 (27 Dec)

Paratype. ZFMK 79.138, adult female; Buea, Cameroon, collected by M. Eisentraut, 29 Apr 1954, field no. 506; received in exchange from SMNS (SMNS catalogue no. 5196), Mar 1979.

Current name. *Hipposideros camerunensis* Eisentraut, 1956.

Comments. Holotype and additional paratypes in SMNS.

Rhinolophus denti knorri Eisentraut, 1960

Stuttg. Beitr. Naturk. 39: 3, fig. 2 (1 June)

Paratypes. ZFMK 59.174, male, skin and skull; cave near Nyembaro, Salung Plateau, 10 km W Kolenté, Guinea, collected by H. Knorre, 15 Nov 1956, field no. 90; ZFMK 59.175, male, skin and skull, same locality and collector, 19 Nov 1956.

Current name. *Rhinolophus (denti) knorri* Eisentraut, 1960.

Comments. Holotype in SMNS.

Rhinolophus ferrumequinum martinoi Petrov, 1941

Zap. Russk. Nauch. Inst. Belgr. 16: 59

Holotype. ZFMK 2002.458, female, skull; Pepeliste near Krivolak, 400 m, 40 km SE Veles, S Serbia, collected by B. Petrov, 9 Apr 1939, field no. BP 214.

Paratypes. ZFMK 98.078, female, skin and skull, same data as holotype, field no. BP 217.

Current name. *Rhinolophus ferrumequinum* (Schreber, 1774), see Csorba et al. (2003).

Rhinolophus landeri guineensis Eisentraut, 1960

Stuttg. Beitr. Naturk. 39: 1, fig. 1 (1 June)

Paratypes. ZFMK 59.176, female, skin and skull; Tahiré, bottom of Kelesi Plateau, Guinea, collected by H. Knorre, 5 Oct 1956, field no. 29; ZFMK 59.177, male, skin and skull, cave near Nyembaro, Kankuya Plateau, 8 km W Kolenté, Guinea, same collector, 23 Nov 1956, field no. 137.

Current name. *Rhinolophus guineensis* Eisentraut, 1960; see Böhme & Hutterer (1979).

Rhinolophus sumatranus K. Andersen, 1905

Proc. zool. Soc. London, 1905: 133 (16 May)

Paratype. ZFMK 78.526, male, complete specimen in spirit; Sumatra, Dr. Lambrecht, without date; transferred from Göttingen Museum (catalogue no. 61a) 1978.

Current name. *Rhinolophus acuminatus sumatranus* K. Andersen, 1905; see Medway (1977: 48).

Rhinolophus ziamia Fahr, Vierhaus, Hutterer & Kock, 2004

Myotis 40: 109, figs. 1–7

Holotype. ZFMK 99.934, adult male, specimen preserved in spirit, skull and parts of skeleton; Reserve de la Biosphère du Massif du Ziamia, western edge of Seredou, Guinée Forestière, Guinea, collected by H. Vierhaus, 12 Aug 1992, field no. HV 2590.

Current name. *Rhinolophus ziamia* Fahr, Vierhaus, Hutterer & Kock, 2004.

Megadermatidae

Megaderma gigas Dobson, 1880

Proc. zool. Soc. London, 1880: 461, plate XLVI (15 June)

Holotype. ZFMK 78.525, specimen in spirit, skull extracted; Wilson's River, Mount Margaret, Central Queensland, Australia, collected by Mr. Wilson, sent to Göttingen Museum by Dr. Schütte 1879. Transferred to ZFMK in 1978; Göttingen Museum catalogue no. 102a.

Current name. *Macroderma gigas* (Dobson, 1880).

Comments. When retrieved in 1978 the skull of the holotype was dissected on one side only. Therefore Dobson must have obtained his figure by mirroring this side of the skull. The only partial dissection of the skull also explains the fact that in the original description the skull figured has no nasal fossa. The skull was cleaned in 1979.

Phyllostomidae

Platyrrhinus chocoensis Alberico & Velasco, 1991

Bonn. zool. Beitr. 42: 238

Paratype. ZFMK 89.250, male, skin and skull; Concepción Bajo Calima pulpopel, Municipio Buenaventura, Valle, Colombia, collected by J.H. Gamba, 2 Mar 1986, field no. 129, donated by M. Alberico in 1989.

Current name. *Platyrrhinus chocoensis* Alberico & Velasco, 1991.

Comments. Further paratypes in ZMB (Turni & Kock 2008), FMNH, MNHN and SMNS.

Molossidae

Dinops Cestoni Savi, 1825

Nuovo Giornale de' Letterati, Pisa, 10: 235

Syntype. ZFMK 83.173, male, complete specimen in spirit; Tuscany, Italy. Label: "*Nyctinomus cestonii*(Savi)Dobson (In der Sammlg. Von Berthold als *Dysopes Savii* angegeben) Prof. Savi ded. 1846 Toscana". Transferred to ZFMK from Göttingen Museum 1978.

Current name. *Tadarida teniotis* (Rafinesque, 1814).

Comments. Synonym of *Tadarida teniotis*. The specimen was sent to the Göttingen Museum by P. Savi. The year specification 1846 refers to the year of inventory taking in Göttingen (cf. Berthold 1850), the specimen was collected before. Additional specimens that can also be considered to represent syntypes are in the museums of Pisa, Vienna, and London.

Vespertilionidae

Amblyotus atratus Kolenati, 1858

Sber. Math.-nat. Cl. kais. Akad. Wiss. 29: 252

Syntype(?). ZFMK 77.1035, male, in spirit, skull extracted; label 1: “*Amblyotus atratus* (Kolenati) / (*Meteoros*) / Altvater Mountains”, label 2: “*Vesperus atratus* Kuhl / Altvater /107a/ C. Koch”.

Current name. *Eptesicus nilssoni* (Keyserling & Blasius, 1839), see Ellerman & Morrison-Scott (1951).

Comments. The ZFMK specimen originates from the bat collection of the renowned chiropetologist Carl Koch who mainly collected in Hesse and Westphalia but also exchanged bats from all over the world or received them from contemporaries. Koch very probably received the specimen now in Bonn from his contemporary Kolenati. This assumption is supported by the label entries of Kolenati's genus (*Amblyotus*), subgenus (*Meteoros*) and species (*atratus*) as well as the type locality “Altvater Mountains”. C. Koch's main work (Das Wesentliche der Chiropteren mit besonderer Beschreibung der in dem Herzogtum Nassau und den angrenzenden Landestheilen vorkommenden Fledermäuse, 1862/63) contains a paragraph on *Meteoros atratus* (Kolenati) on page 393 which documents that Koch saw a specimen. In addition he points out the similarity of *M. atratus* with *V. nilssoni*.

Plecotus alpinus Kiefer & Veith, 2002

Myotis 39: 8, figs. 2–4 (Apr 2002)

Holotype. ZFMK 2001.325, male, skin and skull; Ristolas (06°57'N 44°46'E), Haute Alpes, France, 1600m, collected by P. Favre, 24 Aug 2001.

Paratypes. ZFMK 61.451, adult female, skin and skull, Schaan (51°06'N, 06°28'E), Liechtenstein, collected by E. von Lehmann, 23 Aug 1961; ZFMK 2001.237, adult female, skin and skull, Fischertratten (46°56'N, 13°31'E), 768 m, Austria, collected by G. Reiter, 15 May 2000; ZFMK 2001.328, juvenile male, dry skin with skull, Duvin (46°43'N, 09°12'E), 1080 m, Switzerland, collected by M. Lutz, 29 Aug 2000.

Current name. *Plecotus macrobullaris alpinus* Kiefer & Veith, 2002.

Comments. See Kock (2002) for a discussion of the publication date.

Plecotus auritus hispanicus Bauer, 1957

Bonn. zool. Beitr. 7: 312 (31 Jan)

Holotype. ZFMK 46.292, female, skin and skull; Lagunilla, Bejar, Salamanca, Spain, collected by H. Grün, 7 July 1940.

Paratypes. 8 skins and skulls, 1 specimen in spirit; ZFMK 34.19 (Lagunilla, 3 Feb 1934), 46.288 - 46.291, 46.293 (same locality, 6–10 July 1940), 35.73 (Linares de Riofrio, 2 May 1935), 53.36 (same locality, 3 Feb 1953), 30.66 (specimen in spirit, Mosqueruela, 3 Oct 1930), all collected by H. Grün.

Current name. *Plecotus austriacus hispanicus* Bauer, 1957; see Bauer (1960: 141–144).

Pipistrellus eisentrauti Hill, 1968

Bonn. zool. Beitr. 19: 45 (10 Apr)

Holotype. ZFMK 68.5, adult male, skin and skull; Lager V, Dikume-Balue, Rumpi Hills, Cameroon, collected by M. Eisentraut, 18 Feb 1967, field no. 498.

Paratype. ZFMK 68.6, adult female, skin and skull; Lager II, ca. 1100 m, Mount Kupe, Cameroon, same collector, 30 Nov 1966, field no. 198.

Current name. *Hypsugo eisentrauti* (Hill, 1968).

Comments. Another paratype was given to BMNH.

Vespertilio Bonapartii Savi, 1838

Nuovo Giornale de' Letterati, Pisa, 37: 226

Syntype. ZFMK 83.172, male complete specimen in spirit; Tuscany, Italy. Label: “*Vesperugo maurus* Blas. (feste Dobson 1880. Vgl. Proc. Zool. Soc. Lond. June, 1880) in der alten Samlg von Berthold als *Vespertilio Savii* bezeichnet. A.S. 1847. Toscana.” Transferred from Göttingen Museum to Museum Alexander Koenig in 1978.

Current name. *Hypsugo savii* (Bonaparte, 1837).

Comments. This specimen of Savi's pipistrelle was sent to the Göttingen Museum by Paolo Savi, as noted by Berthold (1850) and was subsequently discussed by Dobson (1880). *Vesperugo maurus* Blasius, 1853 is another synonym of *H. savii*; syntypes of this taxon are preserved in the Natural History Museum of Braunschweig (Heviers 2005).

CARNIVORA

Felidae

Felis catus jordansi Schwarz, 1930

Zool. Anz. 91: 223

Holotype. ZFMK 83.186, male, skin and skull (occiput damaged); Santa Margarita, Majorca, Spain, collected by J. Parnal, 13 Jan 1929.

Paratype. ZFMK 83.187, skin, in poor condition; San Juan, Majorca, same collector, 9 June 1930.

Current name. *Felis silvestris jordansi* Schwarz, 1930.

Comments. Skull and skin of holotype are figured in Haltenorth (1953). The paratype may be a domestic cat.

Viverridae

Genetta boursloni Gaubert, 2003

Mammalia 67: 95, figs. 4–6

Paratype. ZFMK 95.10, skin; Ziama Forest, Gboda, SE Guinea, obtained from local people by W. Bützler, 1993/94.

Current name. *Genetta boursloni* Gaubert, 2003.

Genetta (Paragenetta) lehmanni Kuhn, 1960

Säugetierkundl. Mitt. 8: 154–160, figs. 1, 4, 5, 7, 9–12

Holotype. ZFMK 57.11, skull of an adult individual, sex unknown; Kpeaple (6°36'N, 8°30'W), Liberia, Feb 1956, ex H. Himmelheber collection.

Paratype. ZFMK 61.966, skull of an adult individual, sex unknown, same locality and collector, 1959; formerly in the possession of Dr. H. Himmelheber.

Current name. *Genetta johnstoni* Pocock, 1908.

Comments. Synonym of *Genetta johnstoni* Pocock, 1908 (Kuhn 1965: 332). *Genetta lehmanni* is the type species of the subgenus *Paragenetta* Kuhn, 1960.

Herpestidae

Crossarchus platycephalus Goldman, 1984

Can. J. Zool. 62: 1624

Paratypes. 6 skins, 6 skulls (2 damaged); ZFMK 61.739 (field no. 701), adult male, ZFMK 61.741 (field no. 700), adult female, collected by M. Eisentraut, Lager VI, Iso-bi, near Bibundi, W side Mount Cameroon, Cameroon, 5 Mar 1958, 30 m; ZFMK 61.742 (field no. 719), adult, same locality and collector, 7 Mar 1958; ZFMK 61.740 (field no. 657), ZFMK 61.743 (field no. 563), adult males, Lager V, above Mueli, 600 m, N side Mount Cameroon, Cameroon, same collector, 21 Feb and 6 Feb 1958; ZFMK 69.150 (field no. 578), Lager V, Dikume, 1100 m, Rumpi Hills, W Cameroon, same collector, 1 Mar 1967.

Current name. *Crossarchus platycephalus* Goldman, 1994.

Liberiictis kuhni Hayman, 1958

Ann. Mag. nat. Hist. (13) 1: 449, fig. 1

Paratypes. 6 skulls, ZFMK 58.21 – 58.26; Gaplay (7°8'N, 8°28'W), NE-Liberia, Jan 1957, ex H. Himmelheber collection.

Current name. *Liberiictis kuhni* Hayman, 1958.

Comments. The original series consisted of 8 skulls. The holotype is BMNH 58.507 and one paratype was in the collection of the Department of Biogeography, Saarbrücken University.

Canidae

Vulpes vulpes toschii Lehmann, 1969

Z. Jagdwiss. 15: 28–31, figs. 1–4

Holotype. ZFMK 66.487, adult female, flat skin and skull; Calvo area, Monte Gargano, Apulia, Italy, collected by M. Facciorusso, 13 Oct 1961, collection G. Witte.

Paratypes. 4 skulls, 2 flat skins. ZFMK 56.741, male, flat skin and skull, Foresta Umbra, Monte Gargano, collected by B. Hagen, 12 Sept 1955; ZFMK 56.742, skull, humerus and femur, same locality and collector; ZFMK

66.488, female, skull, Calvo area, Monte Gargano, 800–900 m, collected by M. Facciorusso, June 1961, collection G. Witte no. 214; ZFMK 66.489, damaged skull, Foresta Umbra, Monte Gargano, collected by La Torre, June 1961, collection G. Witte no. 243; ZFMK 68.205, male, flat skin, Lungro, Calabria, Italy, through V. Skanderberg, winter 1967/68, collection E. von Lehmann.

Current name. *Vulpes vulpes crucigera* Bechstein, 1789.

ARTIODACTYLA

Cervidae

Alces pfizenmayeri Zukowsky, 1910

Wild und Hund 16, 45: 808.

Material. ZFMK 2009.632, a possible syntype or paralectotype; skull of adult male, junction of Aldan and Lena River, Yakutsk Province, Russia; collected by E. Pfizenmayer (Tbilisi) in Nov 1909.

Current name. *Alces americanus* (Clinton, 1822).

Comments. Pfizenmayer (1910) published an account on a large form of moose from northern Siberia in which he figured five male skulls from the Aldan Range. Zukowsky (1910: 808) subsequently commented on this article and named the moose *Alces pfizenmayeri*. In 1914 he added a more detailed account in which he fixed the skull shown in Pfizenmayer's (1910) figure 6 as the type; this skull had been donated to the Berlin Museum and catalogued under number A.19.09 (Zukowsky 1914: 38). A letter from E. Pfizenmayer to Alexander Koenig dated 15 June 1911 (ZFMK Archives) tells that he sold other skulls from that series to the museums of Vienna, Washington, Stockholm, and Bonn; one he kept for himself. Zukowsky's (1914) action of fixing the Berlin specimen as the type can be taken as a lectotype designation; the remaining specimens will then be paralectotypes. The Bonn specimen was not figured in the paper of Pfizenmayer (1910); its status is therefore questionable. It is, however, one of the original specimens obtained by Pfizenmayer from the type locality. Grubb (2005) included the name as a synonym in *Alces americanus*. Zukowsky's name, however, is the earliest available name for the Palaearctic range of the American Moose and is sometimes applied as technical name for the Yakutsk Moose (Franzmann 1981).

Dama dama geiselana Pfeiffer, 1998

Eiszeitalter u. Gegenwart 48: 75, figs. 1C, 2, 6

Material. ZFMK 2009.629, cast of right antler of holotype (Landesmuseum für Vorgeschichte Halle, HK 97:14165 NN17); Pleistocene lake sediments of Neumark-Nord, Geiselatal, Sachsen-Anhalt, Germany.

Current name. *Dama dama geiselana* Pfeiffer, 1998.

Comments. Cast taken from original by ZFMK staff.

RODENTIA

Sciuridae

Sciurus ingrami sebastiani Müller & Vesmanis, 1971

Senckenberg. biol. 52: 378

Holotype. ZFMK 2009.622 (formerly Univ. Saarbrücken 0535), adult male, skin and skull; rainforest above the electric power station, 500 m, San Sebastiao Island (23°50'S, 45°20'W), São Paulo State, Brazil, collected by E. & P. Müller, E.B. Böhaler & F. Silva, Oct 1964, field no. 234.

Paratypes. ZFMK 2009.623 - 2009.628, 6 skins, 3 skulls, same locality and collectors, 1964–1967.

Current name. This taxon was overlooked by Thorington & Hoffmann (2005), and its status therefore not evaluated. They included *ingrami* as a subspecies in *Sciurus aestuans*, however, Müller & Vesmanis (1971) demonstrated that *sebastiani* was larger in cranial measurements than *ingrami* from the mainland, and that its body colouration was darker. Here we tentatively accept the taxon as a valid island form as *Sciurus aestuans sebastiani* Müller & Vesmanis, 1971.

Comments. Holotype and paratypes were initially stored at the Department of Biogeography at Saarbrücken University, then transferred to the University of Trier, and finally donated to the ZFMK in 2009. Two further paratypes are in SMF (SMF 40557-8).

Sciurus vulgaris hoffmanni Valverde, 1967

Bol. R. Soc. Esp. Hist. Nat., Biol. 65: 225

Paratype. ZFMK 92.518, adult male, skin and skull; La Perdiz, Sierra de Espuna, Alhama de Murcia, Spain, collected by J. A. Valverde, 25 Apr 1967, field no. 979.

Current name. *Sciurus vulgaris hoffmanni* Valverde, 1967 is antedated by *Sciurus aestuans hoffmanni* Peters, 1864, a Central American squirrel (Peters 1864, Elliot 1904). Both homonyms were listed by Thorington & Hoffmann (2005) without comment. A replacement name is therefore required for the strikingly large and pale squirrel of the Sierra de Espuna. It shall be further on known as *Sciurus vulgaris valverdei* Hutterer nom. nov., in honour of its describer, J. A. Valverde.

Comments. Holotype is no. 985 in the Estación Biológica de Donana, Sevilla. Measurements of paratype 979 were included in Valverde (1967); the specimen was donated by J. A. Valverde to J. Niethammer and remained in his private collection until it was passed to the ZFMK in 1992.

Gliridae

Dryomys nitedula aspromontis Lehmann, 1964

Sitzber. Ges. naturf. Freude Berl. (N.F.) 4: 33, fig. 2

Holotype. ZFMK 63.510, adult male, skin and skull; Gambarie d'Aspromonte, Calabria, Italy, collected by E. von Lehmann, 13 Aug 1963, field no. 92.

Paratypes. ZFMK 63.508, 63.509, 63.511 – 63.513, 3 males, 2 females, skins and skulls, same locality and collector as holotype, 12–13 Aug 1963, field nos. 85–86, 93–95.

Current name. *Dryomys nitedula* (Pallas, 1778).

Dryomys nitedula diamesus Lehmann, 1959

Bonn. zool. Beitr. 10: 4 (7 Sept)

Holotype. ZFMK 58.211, male, skin and skull; Ivanova Kurita, Montenegro, former Yugoslavia, collected by E. von Lehmann, 16 Sept 1958, field no. 28.

Paratypes. ZFMK 58.210, 58.212, 1 male, 1 female, skins and skulls, same locality and collector as holotype, 14–15 Sept 1958, field nos. 16, 23.

Current name. *Dryomys nitedula* (Pallas, 1778).

Comments. Kryštufek (1985) discussed the status of the species in former Yugoslavia.

Muscardinus avellanarius abanticus Kivanç, 1983

Bonn. zool. Beitr. 34: 421, figs. 2, 3 (14 Dec)

Paratypes. ZFMK 83.127, 83.128, females, skins and skulls; Abant, Vil. Bolu, Turkey, collected by E. Kivanç, 6 Aug 1980 and 5 July 1981, field nos. EK 84, EK63.

Current name. *Muscardinus avellanarius abanticus* Kivanç, 1983.

Comments. Holotype in the collection of the Biology Department in the Natural Sciences Faculty of Ankara Univ.

Muscardinus avellanarius kroECKi G. Niethammer & Bohmann, 1950

Neue Ergebnisse und Probleme der Zoologie (Klatt-Festschrift), Leipzig, p. 661

Holotype. ZFMK 74.272, unsexed skin; Vitosa, 1500 m, 10 km S Sofia, Bulgaria, collected by A. Kroeck, 26 Aug 1944, field no. 81, at the same time no. 173/44 of the Bohmann collection. Donated to Museum Koenig by Bohmann in Oct 1974.

Current name. *Muscardinus a. avellanarius* (Storch 1978).

Nesomyidae

Petromyscus collinus kurzi Lehmann, 1955

Bonn. zool. Beitr. 6: 171 (31 Dec)

Holotype. ZFMK 55.75, male, skin and skull; Renosterberg, Kaoko-veld, Namibia, collected by W. Hoesch, 26 Mar 1955, field no. 1256.

Paratypes. ZFMK 55.79, 55.455, 55.456, skins and skulls, same locality, collector and date as holotype.

Current name. *Petromyscus collinus* (Thomas & Hinton, 1925), see Musser & Carleton (2005).

Cricetidae***Clethrionomys glareolus curcio*** Lehmann, 1961

Zool. Anz. 167: 219

Holotype. ZFMK 60.352, adult female, skin and skull; Camigliatello Silano, Calabria, Italy, collected by E. von Lehmann, 2 Aug 1960, field no. 29.

Paratypes. ZFMK 60.349 - 60.351, 60.353, 60.354, 60.356 - 60.366, 16 skins and skulls, same locality and collector, July/Aug 1960.

Current name. *Myodes glareolus* (Schreber, 1780); see Musser & Carleton (2005).

Clethrionomys glareolus garganicus Hagen, 1958

Z. Säugetierkd. 23: 54, fig. 1

Holotype. ZFMK 58.128, adult male, skin and skull; Foresta Umbra, 800 m, Monte Gargano, Apulia, Italy, collected by B. Hagen, 28 Aug 1955, field no. 24.

Paratypes. ZFMK 58.123 - 58.127, 58.129 - 58.143, 20 skins and skulls, same locality, collector and date, field nos. 8, 19, 20, 22 - 26, 28 - 30, 32 - 42.

Current name. *Myodes glareolus* (Schreber, 1780); see Musser & Carleton (2005).

Comments. Hagen (1958: 56, table 2) lists 24 specimens in her description of which 21 were in the ZFMK collection in Apr 1979. The collection date of the holotype was given by Hagen (1958: 55) as "July" but "VIII. 1955" is recorded on its label; likewise all paratypes were collected in Aug 1955.

Clethrionomys glareolus pirinus Wolf, 1940

Mitt. Königl. Naturwiss. Inst. Sofia 13: 158 (20 Mar)

Holotype. ZFMK 39.91, adult female, skin and (damaged) skull; Banderiza Hütte, 1800 m, Pirin Mountains, Bulgaria, collected by H. Wolf, 11 June 1938.

Paratypes. ZFMK 39.92 - 39.96, 5 skins and skulls, Banderiza Hütte and (ZFMK 39.96) Demianiza Valley, 1150 m, same collector, 9-13 June 1938.

Current name. *Myodes glareolus* (Schreber, 1780); see Musser & Carleton (2005).

Pitymys bavaricus König, 1962

Senckenberg. biol. 43: 2, figs. 1, 2, 6, 8, 13

Paratypes. ZFMK 79.142, male, skin and skull; Garmisch-Partenkirchen, Bavaria, Germany, collected by C. König, Nov 1961, field no. 1149, received in exchange from SMNS; ZFMK 2009.630, male, skin and skull; same locality and collector, 10 Nov 1959, field no. 1194, ex Coll. J. Niethammer.

Current name. *Microtus bavaricus* (König, 1962).

Comments. The German subpopulation is probably extinct.

Pitymys savii brachycercus Lehmann, 1961

Zool. Anz. 167: 223

Holotype. ZFMK 60.379, male, skin and skull; Camigliatello Silano, Calabria, Italy, collected by E. von Lehmann, 27 July 1960.

Paratypes. ZFMK 60.380 - 60.385, 6 skins and skulls, same locality, collector, and date as in holotype.

Current name. *Microtus brachycercus* (Lehmann, 1961).

Comments. Elevated to species by Galleni et al. (1994).

Microtus anatolicus Kryštufek & Kefelioğlu, 2002

Bonn. zool. Beitr. 50: 8, figs. 2-4

Holotype. ZFMK 99.926, adult male, skin (tail missing) and skull; Yapalı Köyü, Cihanbeyli, Konya, Turkey, collected by H. Kefelioğlu, 20 July 1993.

Current name. *Microtus anatolicus* Kryštufek & Kefelioğlu, 2002.

Comments. 12 paratypes were deposited in the Ondokuz Mayıs University at Samsun, Turkey.

Microtus (Terricola) savii niethammericus Contoli, 2003

Hystrix, Italian Journal of Mammalogy (n.s.) 14: 109

Lectotype. Here designated: ZFMK 2003.928, adult female (6 teats visible), flat skin and skull; Foresta Umbra, 12 km in direction Monte San Angelo (41.13N 15.58E), 750 m, Monte Gargano, Italy, collected by J. Niethammer, 23 Mar 1980; field no. 6124.

Paralectotypes. 19 skins and 20 skulls (11 females, 9 males), all from type locality Foresta Umbra between 700 and 750 m in 1980; ZFMK 2003.916-2003.927, 2003.929-2003.936.

Current name. *Microtus savii* (de Selys-Langchamps, 1838); see Musser & Carleton (2005).

Comments. Contoli (2000: 40) named this taxon *Microtus (Terricola) savii niethammeri*, a nomen nudum and homonym of *Microtus (Terricola) multiplex niethammeri* Brunet-Lecompte & Volobouev, 1994. In 2003, he renamed it *niethammericus* and provided a short description (3 pairs of teats in females, X chromosome acrocentric) and type locality (Foresta Umbra), based on the work of Niethammer (1981). He also listed a series of 21 syntypes (ZFMK 2003.916 - 2003.936), based on the paper of Niethammer (1981) and on correspondence with one of us (RH). No holotype was fixed. We selected a specimen as the lectotype which exhibits one of the diagnostic traits (3 pairs of teats), and which has a skull in good condition. Vouchers for the karyotype of 2n = 54 (1 male, 1 female; Niethammer 1981: 46, fig. 1) are among the paralectotypes.

Nesoryzomys fernandinae Hutterer & Hirsch, 1980

Bonn. zool. Beitr. 30: 276, fig. 2 (28 Dec)

Holotype. ZFMK 79.370, skull of an adult individual, interparietale missing, tip of nasalia damaged, from owl pellets; Fernandina Island, 300 m, Galápagos Islands, Ecuador, collected by U. Hirsch, June 1979.

Paratypes. ZFMK 79.371 – 79.406, 36 skulls, ex pellets, same locality, collector and date as holotype; further paratypes deposited in AMNH, BMNH, FMNH and Charles Darwin Station, Galápagos Islands.

Current name. *Nesoryzomys fernandinae* Hutterer & Hirsch, 1980.

Comments. The species was recently collected alive (Dowler et al. 2000).

Muridae

Acomys cilicius Spitzenberger, 1978

Ann. naturhist. Mus. Wien 81: 444, figs. 1c, 2c, plate 1 (Feb)

Paratypes. ZFMK 68.265, male, skin and skull; 20 km E Silifke, Turkey, collected by H. Mittendorf, 22 July 1968, field no. 181; ZFMK 68.266, 68.267, females, skins and skulls, same locality and collector, 24 July 1968, field nos. 193, 194.

Current name. *Acomys cilicius* Spitzenberger, 1978.

Comments. Holotype in NMW.

Apodemus agrarius henrici Lehmann, 1970

Säugetierk. Mitt. 18: 154, fig. 1 (May)

Holotype. ZFMK 46.441, male, skin and skull; Bildhausen near Münnerstadt, Bad Kissingen District, Germany, collected by G. Heinrich, 10 Aug 1946, field no. 2956.

Paratypes. ZFMK 46.412, male, skin and skull, same locality, collector and date as holotype.

Current name. *Apodemus agrarius* (Pallas, 1771).

Apodemus flavicollis alpinus Heinrich, 1951 – *Apodemus flavicollis alpicola* Heinrich, 1952

Zool. Jb., Syst., 80: 114; J. Mammal. 33: 260

Paratypes. ZFMK 49.20 – 49.25, 4 males, 2 females, skins and skulls; Osterach Valley, Allgäu, Germany, collected by G. Heinrich between 1 and 14 Aug 1949.

Current name. *Apodemus alpicola* Heinrich, 1952

Comments. As *alpinus* was preoccupied Heinrich assigned the name *alpicola* to the same form.

Apodemus tauricus geminae Lehmann, 1961

Zool. Anz. 167: 228

Holotype. ZFMK 58.149, adult female; Monte Gargano, Apulia, Italy, coll. by B. Hagen, Aug 1955, field no. 7.

Paratypes. ZFMK 58.144, 58.145, 58.148, 58.150 – 58.163, 58.156 – 58.164, 15 skins and skulls, same locality, collector and date as holotype.

Current name. *Apodemus flavicollis* (Melchior, 1834); see Musser & Carleton (2005).

Comments. According to the locality data published by Hagen (1958) the terra typica can be specified as “Foresta Umbra, Monte Gargano”.

Apodemus flavicollis sicilianus Lehmann & Schaefer, 1973

Ric. Biol. Selvag., Suppl. 5: 180, figs. 3, 4 (Nov)

Holotype. ZFMK 73.256, adult female, skin and skull; higher range, Mount Etna, ca. 1600 m, Sicily, Italy, collected by E. von Lehmann and H.-E. Schaefer, 12 Sept 1973, field no. 27 (Ä 7).

Paratypes. ZFMK 73.250 – 73.257, 4 males, 3 females, skins and skulls, same locality, collector and date as holotype, field nos. 20–26, 28 (Ä 1–6, 8).

Current name. *Apodemus sylvaticus* (Linnaeus, 1758).

Comments. This name is missing in Wilson & Reeder (2005).

Canariomys tamarani López-Martínez & López-Jurado, 1987

Doñana, Publicación ocasional 2:10

Material. ZFMK 2009.634, cast of holotype I-11, skull without mandibles, rostrum and braincase damaged; ZFMK 2009.635–638, casts of paratypes I-267, I-47, I-516, I-592, skull, upper toothrows, and 2 left mandibles; all from Holocene dune sediments at La Aldea de San Nicolas de Tolentino, Gran Canaria, Canary Islands, Spain, collected by L.F. López-Jurado and colleagues.

Current name. *Canariomys tamarani* López-Martínez & López-Jurado, 1987.

Comments. The original type series is in the Museo Canario, Las Palmas de Gran Canaria, Spain. The species is extinct.

Colomys goslingi eisentrauti Dieterlen, 1983

Bonn. zool. Beitr. 34: 89 (12 Sept)

Holotype. ZFMK 74.366, adult male, skin and skull; Bafut-Ngemba Reserve, Mount Lefo, 1800–1900 m, SE Bamenda Highlands, W Cameroon, collected by W. Böhme and W. Hartwig, 6 Mar 1974, field no. 88.

Paratype. ZFMK 74.365, female, skin and skull, same locality, collectors and date as holotype. Another paratype was transferred to SMNS (now SMNS 32300).

Current name. *Colomys goslingi eisentrauti* Dieterlen, 1983.

Comments. The taxon deserves species status (Hutterer & Dieterlen, unpubl. data).

Colomys goslingi ruandensis Dieterlen, 1983

Bonn. zool. Beitr. 34: 89 (12 Sept)

Holotype. ZFMK 68.548, adult male, skin and skull; Rugege Forest, ca. 2300 m, Uinka, W Ruanda, collected by F. Dieterlen, 21 Aug 1964, field no. D 3450.

Paratypes. ZFMK 68.549 – 68.551, skins and skulls, same locality and collector as holotype.

Current name. *Colomys goslingi ruandensis* Dieterlen, 1983.

Dasymys incomptus longipilosus Eisentraut, 1963

Die Wirbeltiere des Kamerungebirges, Parey, Hamburg und Berlin, p. 132, fig. 30

Paratype. ZFMK 63.670, male, skin and skull; grasslands above Musake Hütte, Mount Cameroon, W Cameroon, collected by M. Eisentraut, 15 Feb 1954, field no. 169; received in exchange from SMNS (Mar 1979).

Current name. *Dasymys incomptus* (Sundevall, 1847), as in Musser & Carleton (2005), but may be a different form (Hutterer, unpubl.).

Comments. Holotype in SMNS.

Deomys ferrugineus poensis Eisentraut, 1965

Bonn. zool. Beitr. 16: 8 (1 Nov)

Holotype. ZFMK 64.1091, adult male, skin (prepared from specimen in spirit) and skull; Refugio, Bioko, Equatorial Guinea, collected by Leon Martin Zambo, July 1964, field no. 691.

Paratypes. ZFMK 66.796, in spirit, field no. 695; ZFMK 64.1092, male, skin and skull, field no. 692; ZFMK 64.1090, 64.1093, 64.1094, females?, all same locality, collector and date as holotype.

Current name. *Deomys ferrugineus* Thomas, 1888; taxonomic status not evaluated.

Comments. One skin out of this series is figured in colour in Eisentraut (1973: plate 1).

Desmodillus auricularis hoeschi Lehmann, 1955

Bonn. zool. Beitr. 6: 171 (31 Dec)

Holotype. ZFMK 55.76, male, skin and skull; Okatjongema, Namibia, collected by W. Hoesch, 22 Apr 1955, field no. 1279.

Paratypes. ZFMK 55.80, 55.466, males, skins and skulls, same locality and collector.

Current name. *Desmodillus auricularis* (Smith, 1834); see Petter (1971).

Desmodillus auricularis wolffi Lehmann, 1955

Bonn. zool. Beitr. 6: 172 (31 Dec)

Holotype. ZFMK 55.77, male, skin and skull; Vogelweide, Namibia, collected by W. Hoesch, 7 July 1954, field no. 1020.

Paratypes. ZFMK 55.81, 55.472, females, skins and skulls, same locality, collector and date.

Current name. *Desmodillus auricularis* (Smith, 1834); see Lehmann (1960) and Petter (1971).

Grammomys caniceps Hutterer & Dieterlen, 1984

Stuttg. Beitr. Naturk. A, 374: 12, figs. 1h, 2h, 3, 4, 5a, 6a, 7 (31 Dec)

Holotype. ZFMK 84.76, male, skin, skull, baculum and viscera in alcohol; Malindi (03°14'S, 40°05'E), Kenia, collected by F. Fröhlich, Sept 1982, in captivity until 24 May 1984.

Paratypes. 3 males (ZFMK 84.32, 84.34, 84.74) and 5 females (ZFMK 84.31, 84.33, 84.72, 84.75), all skins and skulls, offspring of imported animals.

Current name. *Grammomys caniceps* Hutterer & Dieterlen, 1984.

Comments. A further paratype in Stuttgart (SMNS 38200). ZFMK 84.34 is voucher for the karyotype of $2n = 56$, $NF = 78$.

Gerbillus (Gerbillurus) vallinus tytonis Bauer & J. Niethammer, 1960

Bonn. zool. Beitr. 10: 255, figs. 4–6 (10 Jan)

Holotype. ZFMK 59.515, complete skull, from a mummy; Sossus Vley, Namib, Namibia, collected by G. Niethammer, 18 Feb 1959, field no. 1152.

Paratypes. ZFMK 59.516, 6 skulls out of barn owl pellets, same locality, collector and date.

Current name. *Gerbillurus tytonis* (Bauer & J. Niethammer, 1960)

Comments. The year of publication is often given as 1959, but the relevant journal issue was published 10 Jan 1960.

Gerbillus (Dipodillus) dasyurus leosoliticus Lehmann, 1966

Zool. Beitr. (N.F.) 12: 288 (25 Oct)

Holotype. ZFMK 65.174, female, skin and skull; Deit-el-Hajar, 25 km SE Damascus, Syria, collected by H. Mittendorf, 22 Jan 1965, Coll. Kumerloeve no. 185.

Paratypes. ZFMK 65.175 – 65.177, 2 males, 1 female, skins and skulls, same locality and collector, Coll. Kumerloeve nos. 191–193.

Current name. *Dipodillus dasyurus* (Wagner, 1842); see Musser & Carleton (2005).

Gerbillus (Dipodillus) dasyurus palmyrae Lehmann, 1966

Zool. Beitr. (N.F.) 12: 288 (25 Oct)

Holotype. ZFMK 65.183, female, skin and skull; Palmyra, Syria, collected by H. Mittendorf, 2 Jan 1965, Coll. Kumerloeve no. 174.

Paratypes. ZFMK 65.184 – 65.186, 1 male, 2 females, skins and skulls, same locality and collector, Coll. Kumerloeve nos. 172, 173, 175.

Current name. *Dipodillus dasyurus* (Wagner, 1842); see Harrison (1972) and Musser & Carleton (2005).

Gerbillus foleyi Heim de Balsac, 1936

Bull. Biol. Fr. Belg., Suppl. 21: 317, 389, fig. 15

Paratype. ZFMK 60.85, skin and skull; Beni-abbès, Algeria, collected by H. Heim de Balsac, without date.

Current name. *Gerbillus gerbillus* (Olivier, 1801).

Hybomys eisentrauti Van der Straeten & Hutterer, 1986
Mammalia 50: 36, fig. 1

Holotype. ZFMK 74.377, adult male, skin and skull; Lake Bambului, Mount Lefo, 1800 m, Cameroon, collected by W. Böhme, 10 Mar 1974, field no. 115.

Paratypes. ZFMK 74.374, young adult male, 6 Mar 1974; ZFMK 74.375, adult male, 6 Mar 1974; ZFMK 74.376, young adult male, 9 Mar 1974; same collector and locality as holotype; ZFMK 69.175, adult male; Lake Oku, 2100 m, Mount Oku, Cameroon, collected by M. Eisentraut, 19 Jan 1967; all specimens skin and skull.

Current name. Not resolved; Musser & Carleton (1995) included it into *Hybomys badius* Osgood, 1936, while Misou (2010) used the combination *Hybomys rufocanus eisentrauti* Van der Straeten & Hutterer, 1986.

Hybomys univittatus basilii Eisentraut, 1965

Zool. Jb. Syst. 92: 20, figs. 1, 2

Holotype. ZFMK 63.670, adult male, skin and skull; Moca Valley, ca. 1200 m, Bioko, Equatorial Guinea, collected by M. Eisentraut, 16 Nov 1962, field no. 258.

Paratypes. 33 skins with skulls, ZFMK 64.275 – 64.279, 64.281 – 64.287, 64.289 – 64.308, 66.658, Fernando Póo (=Bioko), Equatorial Guinea, same collector, Oct–Dec 1962; Moca Valley, field nos. 153, 154, 159, 166, 171, 172, 184–186, 198, 199, 200, 209, 225, 233, 253, 259, 264, 265, 277–279, 291, 295, 299, 689, 2 specimens without catalogue no.; Refugium, field nos. 359, 376–378, 459.

Current name. *Hybomys basilii* Eisentraut, 1965 (Van der Straeten 1985).

Comments. In the original description Eisentraut (1965: 20) mentioned 34 more specimens in addition to the holotype. In Apr 1979 33 of these could be located in the ZFMK collection. The missing specimen was very likely given to Pater Basilio after whom this subspecies was named. There are 15 more specimens in spirit in the ZFMK collection. These were collected during Eisentraut's 1962/63 expedition but were not considered in the context of the description. Further paratypes were deposited in SMNS and AMNH.

Hylomyscus aeta grandis Eisentraut, 1969

Z. Säugetierkd. 34: 300

Holotype. ZFMK 69.731, adult female, skin and skull; Lager IV, 2100 m, Lake Oku, Bansa Highlands, Cameroon, collected by M. Eisentraut, 22 Jan 1967, field no. 391.

Paratypes. ZFMK 69.732 – 69.734, 1 male, 2 females, skins and skulls, same locality and collector, 20–23 Jan 1967, field nos. 378, 394, 401.

Current name. *Hylomyscus grandis* Eisentraut, 1969 (see Hutterer et al. 1992).

Hylomyscus allenii montis Eisentraut, 1969

Z. Säugetierkd. 34: 302

Holotype. ZFMK 66.372, adult male, skin and skull; Refugium, 2000 m, Pico de Santa Isabel, Bioko, Equatorial Guinea, collected by M. Eisentraut, 22 Dec 1962, field no. 406.

Paratypes. ZFMK 66.730, 66.731, 66.733 – 66.761, 66.691 – 66.693, 66.762 a, 35 skins and skulls, same locality, collector and date; ZFMK 69.664 – 69.669, 6 skins and skulls, same locality and collector, 7 Oct 1966.

Current name. Uncertain; possibly *Hylomyscus montis* Eisentraut, 1969 (RH, unpubl.).

Lemniscomys striatus mittendorfi Eisentraut, 1968

Bonn. zool. Beitr. 19: 7 (10 Apr)

Holotype. ZFMK 68.8, adult male, skin and skull; Lake Oku, ca. 2100 m, Bansa Highlands, W Cameroon, collected by M. Eisentraut, 30 Jan 1967, field no. 452.

Paratypes. ZFMK 69.258 – 69.262, 2 males, 3 females, skins and skulls, same locality and collector, 29 Jan – 11 Feb 1967, field nos. 463, 453, 455, 443, 464.

Current name. *Lemniscomys mittendorfi* Eisentraut, 1968; see Van der Straeten & Verheyen (1980).

Comments. In the text of his description Eisentraut mentions the elevation of the type locality as ca. 2300 m, in the locality register and on the specimen label it is listed as 2100 m. The holotype is figured in colour in Eisentraut (1973; pl. 3).

Lophuromys dieterleni Verheyen, Hulselmans, Colyn & Hutterer, 1997

Bull. Inst. r. Sci. nat. Belg. Biol. 67: 173, figs. 2, 5

Holotype. ZFMK 68.289, adult male, skin and skull; Lake Oku, Lager IV (06°12'N, 10°32'E), 2100m, Bansa Highlands, W Cameroon, collected by M. Eisentraut, 21 Jan 1967, field no. 384.

Paratypes. ZFMK 69.286, 69.287 (adult females), 69.288, 69.290 (adult males), skins and skulls, same locality and collector as holotype, 17 – 31 Jan 1967, field nos. 459, 347, 369, 389.

Current name. *Lophuromys dieterleni* Verheyen, Hulselmans, Colyn & Hutterer, 1997; see Musser & Carleton (2005).

Comments. The status of this taxon was discussed by Misou (2010).

Lophuromys medicaudatus Dieterlen, 1975

Bonn. zool. Beitr. 26: 295, figs. 1–4 (Dec)

Paratypes. ZFMK 68.982 (male), 68.984 (female), skins and skulls; Kahuzi, Democratic Republic of the Congo, collected by F. Dieterlen, 11–13 Nov 1966, field nos. D 9069, D 9036; ZFMK 68.983, 68.985, 1 male, 1 female, skins and skulls, Tshibati, Democratic Republic of the Congo, same collector, 30 Mar 1966 and 7 Apr 1964, field nos. D 7254, D 1884.

Current name. *Lophuromys medicaudatus* Dieterlen, 1975

Comments. Holotype in SMNS.

Lophuromys roseveari Verheyen, Hulselmans, Colyn & Hutterer, 1997

Bull. Inst. r. Sci. nat. Belg. Biol. 67: 167, figs. 2, 3

Holotype. ZFMK 69.297, female, skin and skull; Musake Hütte (04°08'N, 09°12'E), Mount Cameroon, 1850–2200 m, Cameroon, collected by M. Eisentraut, 18 Mar 1967, field no. 656.

Paratypes. ZFMK 69.292 (adult male), 69.302 (adult female), skins and skulls, Musake Hütte, Mount Cameroon, 1850–2200 m, field nos. 655, 658; ZFMK 69.293, 69.296, adult females, skins and skulls, Hütte II (04°11'N, 09°12'E), Mount Cameroon, 3000 m, Cameroon, field nos. 716, 712; ZFMK 61.790, adult male, skin and skull, Buea (04°09'N, 09°13'E), 1800 m, Cameroon, field no. 4; all collected by M. Eisentraut.

Current name. *Lophuromys eisentrauti roseveari* Verheyen, Hulselmans, Colyn & Hutterer, 1997; see Missou (2010).

Lophuromys sikapusi eisentrauti Dieterlen, 1979

Bonn. zool. Beitr. 29: 296, figs. 1, 4 (30 Jan)

Holotype. ZFMK 74.436, adult male, skin and skull; slope of Mount Lefo, near Bamenda, Cameroon, collected by W. Böhme, 6 Mar 1974, field no. 81.

Paratype. ZFMK 74.437, juvenile to subadult female, skin and skull, same collector, locality and date as holotype, field no. 92.

Current name. *Lophuromys eisentrauti* Dieterlen, 1979.

Lophuromys sikapusi parvulus Eisentraut, 1965

Zool. Jb. Syst. 92: 24, figs. 3, 4

Holotype. ZFMK 63.669, adult female, skin and skull; Moca Valley, 1200 m, Bioko, Equatorial Guinea, collected by M. Eisentraut, 28 Oct 1962, field no. 165.

Paratypes. ZFMK 64.481 – 64.483, 1 male, 2 females, skins and skulls, same locality and collector as holotype, 30 Oct–16 Nov 1962, field nos. 173, 262, 178.

Current name. *Lophuromys nudicaudus* Heller, 1911.

Malpaisomys insularis Hutterer, López-Martínez & Michaux, 1988

Palaeovertebrata 18: 246, figs. 3–5, 7, plates 1, 2

Paratypes. ZFMK, yet uncounted and uncatalogued mandibles, maxillaries, and skeletal elements; all from type level CV-A1 at locality Cueva Villaverde near La Oliva (22°38'N, 10°12'30"W), Fuerteventura, Canary Islands, Spain; age 1070 ± 50 BP.

Current name. *Malpaisomys insularis* Hutterer, López-Martínez & Michaux, 1988.

Comments. Holotype in the Department of Palaeontology, Universidad Complutense, Madrid (CV-188.1). Paratypes were distributed to AMNH, BMNH, CM, FMNH, SMF, and many other collections. Extinct species.

Mastomys verheyeni Robbins & Van der Straeten, 1989

Senckenberg. biol. 69: 4, figs. 1, 2

Paratypes. ZFMK 92.468 (male), 92.469 (female), both preserved in spirit with skulls extracted; Guemé, N Cameroon, both collected by members of RUCA, 23 Nov 1970, field nos. RUCA 162, 163.

Current name. *Mastomys kollmanspergeri* (Petter, 1957) (Musser & Carleton 2005).

Comments. Specimens were donated by E. Van der Straeten in 1992. Holotype and paratypes in SMF, further paratypes in RMCA.

Mus sylvaticus maximus Burg, 1925

Pallasia 3: 70

Lectotype. ZFMK 83.169, adult female, skin and skull; Bergell, Switzerland, collected by G. von Burg, Feb 1921.

Paralectotype. ZFMK 83.170, skin; Bergell, Switzerland, collected by G. von Burg, Mar 1923.

Current name. *Apodemus flavicollis* (Melchior, 1834); see Hutterer (1984).

Comments. The lectotype was designated by Hutterer (1984). Musser & Carleton (2005) listed this name under the synonymy of *A. sylvaticus* (Linnaeus, 1758). *Apodemus sylvaticus maximus* (Burg, 1925) is a senior homonym of the extinct taxon *Apodemus maximus* Thaler, 1972, described from the Pliocene of Sicily (Thaler 1972). A substitute name is therefore proposed for the fossil species: *Apodemus pellegrinoides* Hutterer nom. nov. (pro *Apodemus maximus* Thaler, 1972, not *Apodemus sylvaticus maximus* (Burg, 1925)).

Oenomys hypoxanthus albiventris Eisentraut, 1968

Bonn. zool. Beitr. 19: 8 (10 Apr)

Holotype. ZFMK 68.9, adult male, skin and skull; Lager IV, ca. 2100 m, Lake Oku, Bansa Highlands, W Cameroon, collected by M. Eisentraut, 23 Jan 1967, field no. 397.

Paratypes. ZFMK 69.196 – 69.198, 1 male, 2 females, skins and skulls, same locality and collector, 25 Nov 1966–2 Feb 1967, field nos. 171, 465, 395.

Current name. Included in *Oenomys hypoxanthus* (Pucheran, 1855) by Musser & Carleton (2005), but this form requires a re-consideration.

Comments. Holotype figured in colour in Eisentraut (Bonn. zool. Monogr. 3: plate 3, 1973).

Otomys occidentalis Dieterlen & Van der Straeten, 1992
Bonn. zool. Beitr. 43: 386, figs. 2–4

Paratypes. ZFMK 69.218, female, skin and skull; Mount Oku, 2100 m, Cameroon, collected by M. Eisentraut, 28 Jan 1967; ZFMK 88.139, ZFMK 88.140, females, skins and skulls, Gangirwal, Gotel Mountains, Nigeria, collected by G. Nikolaus, 18 and 20 Mar 1988.

Current name. *Otomys occidentalis* Dieterlen & Van der Straeten, 1992

Comments. The holotype SMNS 41336 consists of a skull, the skin is lost.

Praomys hartwigi Eisentraut, 1968

Bonn. zool. Beitr. 19: 8 (10 Apr)

Holotype. ZFMK 68.7, adult female, skin and skull; Lager IV, Lake Oku, Bansa Highlands, W Cameroon, collected by M. Eisentraut, 24 Jan 1967, field no. 402.

Paratypes. ZFMK 69.1073, 69.1075, 69.1077–69.1079, 69.1081, 2 males, 4 females, skins and skulls, same locality and collector, 20–26 Jan 1967, field nos. 399, 396, 409, 377 a, 385, 386; ZFMK 69.1074, 69.1076, 1 male, 1 female, skins and skulls, Lager III, ca. 1800 m, Lake Manenguba, same collector, 2–4 Jan 1967, field nos. 316, 323.

Current name. *Praomys hartwigi* Eisentraut, 1968.

Comments. One paratype (ZFMK 69.1072) was transferred in exchange to SMNS.

Praomys hartwigi obscurus Hutterer & Dieterlen, 1992
Bonn. zool. Beitr. 43: 402, figs. 1, 2 (21 Oct)

Holotype. ZFMK 88.115, adult female, skin and skull; Gangirwal, 2300 m, Gotel Mountains, SE Nigeria, collected by G. Nikolaus, 16 Mar 1988, field no. (GN5).

Paratypes. 10 specimens, ZFMK 88.114, 88.116–88.124, same locality and collector as holotype, 15–20 Mar 1988; 6 specimens, ZFMK 88.125–88.130, Chappal Waddi, 1900 m, same collector, 21–23 Mar 1988.

Current name. *Praomys obscurus* Hutterer & Dieterlen, 1992 (Musser & Carleton 2005).

Comments. Described in Hutterer, Dieterlen & Nikolaus (1992). Additional paratypes in SMNS.

Praomys petteri Van der Straeten, Lecompte & Denys, 2003

Bonn. zool. Beitr. 50: 333, figs. 2, 3 (24 Feb)

Paratypes. ZFMK 70.146 (male), 70.147 (female), 92.318–92.322 (2 males, 3 females), all preserved in spirit with skulls extracted; all from breeding colony of F. Petter (Paris), from animals collected 1968 at Boukoko, Central African Republic.

Current name. *Praomys petteri* Van der Straeten, Lecompte & Denys, 2003.

Comments. The specimens are from the breeding colony of “*P. morio*” which yielded the karyotype of $2n = 42$ (Petter 1965).

Rattus rattus povolnyi J. Niethammer & Martens, 1975
Z. Säugetierkd. 40: 344

Holotype. ZFMK 78.001, male, skin and skull; Dar-i-Nur, near Djalalabad, 1200 m, E Afghanistan, collected by J. Niethammer, 18 Apr 1966, field no. A 1230.

Paratypes. ZFMK (not catalogued), 9 specimens, same data as holotype, field nos. A 1223, A 1225, A 1229, A 1531, A 1534, A 1584–1587.

Current name. *Rattus tanezumi* Temminck, 1844; see Musser & Carleton (2005).

Comments. All specimens were collected in houses (field notes of J. Niethammer).

Thamnomys rutilans poensis Eisentraut, 1965

Zool. Jb. Syst. 92: 26, fig. 5

Holotype. ZFMK 63.668, adult male, skin and skull; Moca Valley, 1200 m, Bioko, Equatorial Guinea, collected by M. Eisentraut, 7 Nov 1962, field no. 209 a.

Paratypes. ZFMK 64.484–64.487, females, skins and skulls, field nos. 292 (29 Nov), 226 (9 Nov), 683 (3 Nov 1962), all same locality and collector as holotype; ZFMK 66.795, specimen in spirit, same locality and collector, 11 Nov 1962, field no. 229; ZFMK 64.486, skin and skull, shrub willow area above Moca, ca. 1500 m, same collector, 11 Mar 1963, field no. 683.

Current name. *Grammomys poensis* (Eisentraut, 1965).

Comments. *Grammomys poensis* replaces the better known *G. rutilans* which is not available (Hutterer, in Musser & Carleton 2005).

Octodontidae

Octodon pacificus Hutterer, 1996

Z. Säugetierkd. 59: 28, figs. 1–6

Holotype. ZFMK 92.384, adult female, skin and skull; Isla Mocha, Arauco Province, Chile, collected by Francisco Behn, 16 Jan 1959, field no. L6. Skull lacks occipital and bullae.

Paratypes. 3 skins and skulls, ZFMK 92.383, adult female, and ZFMK 92.385–6, two juveniles, collected by F. Behn at the type locality between 11 and 24 Jan 1959.

Current name. *Octodon pacificus* Hutterer, 1996.

Comments. The species is most probably extinct, the type specimens obtained in 1959 being the first and last record of a living animal. A survey of mammals on Isla Mocha yielded no trace of this species, however, remains were found in an archaeological excavation (Saavedra et al. 2003).

CONCLUSIONS

This catalogue presents the status of the ZFMK mammal collections in 2010. 77 holotypes, 5 syntypes, 2 lectotypes, and 1 neotype are listed. In addition, paratypes or paralectotypes for 105 taxa are included. The number of type specimens will increase in the future, as more species of mammals will be described, based on ZFMK material. This is particularly true for Africa, where new species of mammals are frequently being discovered (Hoffmann et al. 2009).

Some issues concerning type material could not yet be resolved, but may be so in the future. For example, Groves (2003) mentioned unspecified material in “Museum Alexander Koenig (Bonn)” that served for his description of *Gazella benettii salinarum* Groves, 2003. We were not able to trace such material so far. The description of *Suncus hututsi* Kerbis Peterhans & Hutterer, 2009 includes a statement that one paratype will be deposited in the ZFMK (Kerbis Peterhans & Hutterer 2009) but this has not been done yet.

Numerous vouchers for karyotypes still have to be identified. For example, specimens of European and Asian *Mus* and *Vandeleuria* were used by Gropp et al. (1969, 1970, 1973) to analyze their karyotypes, as were specimens of *Mus* from Sicily by Lehmann & Radbruch (1977). Also GenBank voucher specimens will have to be identified in order to link published sequences with vouchers in the Bonn collection. This is one of the next goals to be achieved.

GEOGRAPHIC ORIGIN OF TYPE SPECIMENS (EXCLUDING CASTS)

Afghanistan

Rattus rattus povolnyi J. Niethammer & Martens

Algeria

Gerbillus foleyi Heim de Balsac

Australia

Megaderma gigas Dobson

Austria

Sorex araneus wettsteini Bauer

Bosnia and Herzegovina (former Yugoslavia)

Crocidura suaveolens balcanica Ondrias

Brazil

Sciurus ingrami sebastiani Müller & Vesmanis

Bulgaria

Clethrionomys glareolus pirinus Wolf

Muscardinus avellanarius kroecki G. Niethammer & Bohmann

Cameroon

Colomys goslingi eisenrauti Dieterlen

Crocidura flavescens bueae Heim de Balsac & Barloy

Crocidura manengubae Hutterer

Crossarchus platycephalus Goldman

Dasymys incomptus longipilosus Eisenraut

Hipposideros camerunensis Eisenraut

Hybomys eisenrauti Van der Straeten & Hutterer

Hylomyscus aeta grandis Eisenraut

Lemniscomys striatus mittendorfi Eisenraut

Lophuromys dieterleni Verheyen, Hulselmans, Colyn & Hutterer

Lophuromys roseveari Verheyen, Hulselmans, Colyn & Hutterer

Lophuromys sikapusi eisenrauti Dieterlen

Mastomys verheyeni Robbins & Van der Straeten

Myosorex eisenrauti okuensis Heim de Balsac

Myosorex eisenrauti rumpii Heim de Balsac

Oenomys hypoxanthus albiventris Eisenraut

Otomys occidentalis Dieterlen & Van der Straeten

Paracrocridura schoutedeni camerunensis Heim de Balsac

Pipistrellus eisenrauti Hill

Praomys hartwigi Eisenraut

Rousettus aegyptiacus occidentalis Eisenraut

Sylvisorex granti camerunensis Heim de Balsac

Sylvisorex silvanorum Hutterer, Riegert & Sedláček

Central African Republic

Praomys petteri Van der Straeten, Lecompte & Denys

Chile

Octodon pacificus Hutterer

Colombia

Platyrrhinus chocoensis Alberico & Velasco

Czech Republic

Amblyotus atratus Kolenati

Democratic Republic of the Congo

Crocidura kivuana Heim de Balsac

Crocidura lanosa Heim de Balsac

Crocidura littoralis stenocephala Heim de Balsac

Lophuromys medicaudatus Dieterlen

Sylvisorex akaibei Mukinzi, Hutterer & Barriere

Ecuador

Nesoryzomys fernandinae Hutterer & Hirsch

Equatorial Guinea

Deomys ferrugineus poensis Eisenraut

Hybomys univittatus basillii Eisenraut

Hylomyscus alleni montis Eisenraut

Lophuromys sikapusi parvulus Eisenraut

Myosorex eisenrauti Heim de Balsac

Sylvisorex morio isabellae Heim de Balsac

Thamnomys rutilans poensis Eisenraut

Ethiopia

Crocidura flavescens hansruppi Hutterer

France

Plecotus alpinus Kiefer & Veith

Germany

Apodemus agrarius henrici Lehmann

Apodemus flavicollis alpinus Heinrich = *Apodemus flavicollis alpicola* Heinrich

Neomys anomalus rhenanus Lehmann

Pitymys bavaricus König

Sorex araneus huelleri Lehmann

Sorex minutus becki Lehmann

Greece

Crocidura ariadne Pieper

Guinea

Crocidura (bottegi) obscurior Heim de Balsac

Genetta burloni Gaubert

Rhinolophus denti knorri Eisentraut

Rhinolophus landeri guineensis Eisentraut

Rhinolophus ziamia Fahr, Vierhaus, Hutterer & Kock

India

Gazella benettii salinarum Groves

Indonesia

Rhinolophus sumatranus K. Andersen

Italy

Apodemus flavicollis sicilianus Lehmann & Schaefer

Apodemus tauricus geminae Lehmann

Clethrionomys glareolus curcio Lehmann

Clethrionomys glareolus garganicus Hagen

Crocidura sicula aegatensis Hutterer

Crocidura suaveolens bruecheri Lehmann

Dinops cestoni Savi

Dryomys nitedula aspromontis Lehmann

Microtus savii niethammericus Contoli

Pitymys savii brachycercus Lehmann

Sorex araneus silanus Lehmann

Sorex etruscus Savi

Talpa romana wittei Capolongo

Vespertilio bonapartii Savi

Vulpes vulpes toschii Lehmann

Kenya

Grammomys caniceps Hutterer & Dieterlen

Liberia

Genetta (Paragenetta) lehmanni Kuhn

Liberiictis kuhni Hayman

Liechtenstein

Sorex minutus becki Lehmann

Malta

Crocidura sicula calypso Hutterer

Montenegro (former Yugoslavia)

Dryomys nitedula diamesus Lehmann

Talpa caeca steini Grulich

Talpa stankovici montenegrina Kryštufek

Namibia

Desmodillus auricularis hoeschi Lehmann

Desmodillus auricularis wolffi Lehmann

Elephantulus intufi omahekensis Lehmann

Eremitalpa granti namibensis Bauer & J. Niethammer

Gerbillus (Gerbillurus) vallinus tytonis Bauer & J. Niethammer

Petromys collinus kurzi Lehmann

Pronolagus randensis waterbergensis Hoesch & Lehmann

Nigeria

Crocidura yankariensis Hutterer & Jenkins

Praomys hartwigi obscurus Hutterer & Dieterlen

Sylvisorex corbeti Hutterer & Montermann

Oman

Crocidura arabica Hutterer & Harrison

Paraguay

Cabassous chacoensis Wetzel

Republic of the Congo

Congosorex verheyeni Hutterer, Barriere & Colyn

Republic of the Philippines

Crocidura batakorum Hutterer

Crocidura panayensis Hutterer

Russia

Alces alces pfizenmayeri Zukowsky

Lagomys ater Eversmann

Rwanda

Colomys goslingi ruandensis Dieterlen

Sylvisorex vulcanorum Hutterer & Verheyen

Senegal

Crocidura lamottei elegans Hutterer

Serbia (former Yugoslavia)

Rhinolophus ferrumequinum martinoi Petrov

Spain

Crocidura canariensis Hutterer, López-Jurado & Vogel

Crocidura osorio Molina & Hutterer

Felis catus jordansi Schwarz

Malpaisomys insularis Hutterer, López-Martínez & Michaux

Neomys fodiens niethammeri Bühler

Plecotus auritus hispanicus Bauer

Sciurus vulgaris hoffmanni Valverde (= *Sciurus vulgaris valverdei* nom. nov.)

Switzerland

Mus sylvaticus maximus Burg

Syria

Gerbillus (Dipodillus) dasyurus leosolliticus Lehmann

Gerbillus (Dipodillus) dasyurus palmyrae Lehmann

Tanzania

Congosorex phillipsorum Stanley, Rogers & Hutterer

Crocidura tansaniana Hutterer

Crocidura telfordi Hutterer

Myosorex kihaulei Stanley & Hutterer

Tunisia

Erinaceus algirus girbaensis Vesmanis

Turkey

Acomys cilicius Spitzenberger

Microtus anatolicus Kryštufek & Kefelioğlu

Muscardinus avellanarius abanticus Kivanç

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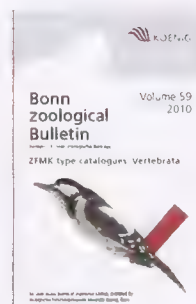
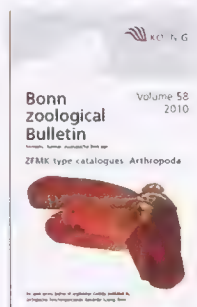
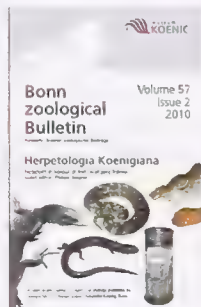
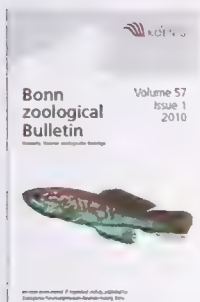
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Bonn zoological Bulletin

formerly: Bonner zoologische Beiträge

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Publication dates:

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Vol. 57 Issue 2: November 2010
Vol. 58: December 2010
Vol. 59: December 2010

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Type specimens in the bird collections of the Zoologisches Forschungsmuseum Alexander Koenig, Bonn

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INTRODUCTION

Primary types play an important role as name-bearing specimens (ICZN, 1999) in the context of correctly addressing the whole spectrum of biodiversity. Names and thus taxonomy are the first step to identify and arrange the diversity of species in appropriate order. The importance of type specimens requires that the information about types should be made globally available. This was the main objective to present this checklist of syntypes, holotypes, lectotypes and paratypes (including paralectotypes) deposited in the skin collections of the ZFMK. A previous list of types in the ZFMK (Rheinwald & van den Elzen 1984) can be seen as a first step. The list is outdated, incomplete and written in German only. Moreover, with the progress of the digital catalogue of bird type specimens in German research collections under GIBF-D-Vertebrata (van den Elzen et al. 2005) and the increase of networking between ornithological collections, several type series were found to be spread over different collections and this valuable information on whereabouts of type specimens is added here. Also the new ICZN with its stricter rules was applied to the former type list and helpful suggestions from colleagues improved the revised version. The new catalogue thus offers the state of knowledge of today. It makes no claim to be complete or free of errors, but it is thought to be a starting point for further discussions, additions or amendments and other suggestions towards a global register of scientific bird names and the collections holding bird types.

Since the previous version of the ZFMK bird type catalogue 13 new taxa were added. The type checklist comprises today 322 primary names, 137 holotypes, 47 syntypes and 95 lectotypes, as well as about 989 para- and paralectotypes. A multitude of new names was proposed by O. Kleinschmidt (and coauthors; 121), whose Collection (Coll. Kl.) was sold to the ZFMK in 1935. Several other collections (of Härms, von Jordans, Dornedde, Schiebel or Martens) were handed to the ZFMK between 1940 and 2006. These collections also included type material that is considered here. And last not least the founder

of the ZFMK, Alexander Koenig, proposed eight new names for birds, of which five are still recognized names of bird species or subspecies today (Dickinson 2003).

The taxa presented in the checklist include all name-bearing types, without evaluating their present acceptance. So we list not only currently recognized taxa, but also synonyms, regardless whether these are objective or subjective synonyms. The sequence of families follows the Howard and Moore Checklist (Dickinson 2003). Also current names were added as a service as in some cases the original names cannot be assigned to current scientific bird names without some difficulty. Current names follow Dickinson (2003), but could not be applied with certainty to all names proposed, as e.g. several of Kleinschmidt's taxon names are not listed in any forerunners of the Howard and Moore Checklist (Dickinson 2003), e.g. Peters Checklist (Mayr & Cottrell, 1979, 1986, Mayr & Greenway 1960, 1962, Mayr & Paynter 1964, Paynter 1967, 1968, 1970, Peters 1931–1951, Traylor 1979), Hartert (1910–1932) or other sources.

Abbreviations for Museum collections used:

AMNH = American Museum of Natural History, New York, New York, U.S.A.

BMNH = Natural History Museum, Tring (= British Museum (Natural History), U.K.

CNHM = Chicago Natural History Museum, Chicago, U.S.A.

DMD = Durban Museum, Durban, R.S.A.

MCZ = Harvard University, Massachusetts, U.S.A.

MfN = Museum für Naturkunde, Berlin, Germany (= ZMB)

MHN = Museo de Historia Natural “Javier Prado”, Lima, Peru

MTKD = see SNS

NHMW = Naturhistorisches Museum, Vienna, Austria

RSM = Royal Scottish Museum, Edinburgh, U.K.

SMF = Naturmuseum Senckenberg, Frankfurt/Main, Germany

SMNS = Staatliches Museum für Naturkunde, Stuttgart

SNS = Senckenbergische Naturkundliche Sammlungen, Dresden

UMB = Überseemuseum, Bremen, Germany

ZMB = see MfN

ZMH = Zoologisches Museum Hamburg, Germany

ZFMK = Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany

ZSM = Zoologische Staatssammlung, Munich, Germany

CHECKLIST OF TYPE SPECIMENS

TINAMIDAE

Nothoprocta pentlandi niethammeri Koepcke, 1968
Bonn zool Beitr 19: 231.

Paratype: ZFMK 68.2060, male, Lomas of Lachay, ca. 90 km N of Lima, Peru. Captured as a chick, prepared as a nine month old bird, 25.07.1960, leg. Montesa. Original No Kp 1883 a, MHN Orn. 1117;

Other paratypes: Kp 1883 c, MHN Orn 2533, female, Lomas of Lachay, 90 km north Lima, Peru; Kp 1883 d, male, in 1968 in the zoological Garden Perque de las Leyndas, Lima; Holotype: Kp. 1883 b, MHN Orn. 2534, male, Lomas of Lachay, 90 km north Lima, Peru, in the MHN Javier Prado, Lima. – Dickinson (2003): *Nothoprocta pentlandii niethammeri*.

PHASIANIDAE

Perdix galliae Bacmeister & Kleinschmidt, 1918
J Ornithol 66: 255.

Lectotype: Coll. Kl. 8231, male, Aussonce, E France, 22.01.1917, leg. Monnard, ex Coll. Bacmeister;

Paralectotypes: Coll. Kl. 8232 male, Thugny, Arrondissement de Rethel, E France, 02.12.1916, leg. Rüst; Coll. Kl. 8233 (male), Aussonce, 21.01.1917, leg. Monard; Coll. Kl. 8234 Aussonce, 16.12.1916, found dead by Bacmeister, all ex. Coll. Bacmeister.

Series of fourteen syntypes, whereabouts of other specimens unknown; nom. nov. added as footnote. – Dickinson (2003): *Perdix perdix perdix* (Linnaeus, 1758).

Alectoris rufa laubmanni Jordans, 1928
Novit Zool 34: 306.

Holotype: ZFMK L.III.9.c³.α., male, Artá, Majorca, 03.04.1921, leg. A. von Jordans, No 2918.

Paratypes: ZFMK L.III.9.c³.β., male, Artá, Majorca, 31.03.1921; ZFMK L.III.9.c³.γ., male, Salinas, Majorca, 03.05.1927; ZFMK L.III.9.c³.δ, female, Salinas, Majorca, 03.05.1927; ZFMK L.III.9.c³.ε, male, Salinas, Majorca, 03.05.1927; ZFMK L.III.9.c³.ζ., male, Salinas, Majorca, 19.05.1927; ZFMK L.III.9.c³. female, 19.05.1927, Salinas, Majorca, all leg. A. von Jordans. – Dickinson (2003): *Alectoris rufa intercedens* (A. E. Brehm, 1857).

Francolinus coqui hoeschianus Stresemann, 1937
Orn Monatsber 45: 66.

Paratype: ZFMK 39.250, male, Waterberg-Plateau, Namibia, 18.09.1936, leg. Hoesch No 628.

Holotype: MfN, Berlin (No 36.206) male, Otjosongombe, Waterberg-Plateau, Namibia, 03.07.1936, leg Hoesch.

Three more paratypes probably also in MfN, Berlin. – Dickinson (2003): *Francolinus coqui coqui* (A. Smith, 1836).

Francolinus hartlaubi crypticus Stresemann, 1939
Orn Monatsber 47: 62.

Paratype: ZFMK 39.967, female, Onguati, Kaokoveld, Namibia, 03.09.1938, leg. Hoesch, No 1363.

Holotype at the MfN, Berlin (No 38.1343) – t. t. as paratype; described from a series of six specimens. – Dickinson (2003): *Francolinus hartlaubi crypticus*.

Francolinus gariepensis stresemanni Hoesch & Niethammer, 1940
J Ornithol 88, special issue: 89.

Paratype: ZFMK 39.966, female, Kakatswa, Namibia, 22.08.1938, leg. Hoesch No 1347.

Type specimen at the MfN, Berlin, also two more paratypes (?). – Dickinson (2003): *Francolinus levaillantoides levaillantoides* (A. Smith, 1836).

Tetrao bonasia styriacus Jordans & Schiebel, 1944
Falco 40: 1.

Holotype: ZFMK 57.667, male, St. Georgen ob Judenburg, Upper Styria, Austria, 01.11.1932, leg. Schiebel.

No paratypes defined in the large series. – Dickinson (2003): *Tetrastes bonasia styriacus*.

Tetrao schiebeli Kleinschmidt, 1941
Falco 37: 18.

Lectotype: ZFMK 57.694, male, Zirknitz, Krain, Austria, 11.09.1927, ex. Coll. Schiebel.

No further paratypes defined or described out of a large series of an unknown number of specimens. – Dickinson (2003): *Tetrastes bonasia schiebeli*.

Tetrao Bonasa rhenana Kleinschmidt, 1917
Ornis Germanica (supplement of Falco) 1: 7; nomen nudum

Tetrao Bonasa rhenana Kleinschmidt, 1944
Falco 40: 4.

Lectotypes: Coll. Kl. 8279, male, Niederhoppen a. d. Wied, Germany 13. 12. 1897; Coll. Kl. 8280, female, Niederhoppen a. d. Wied, Germany, 14. 12. 1897; Coll. Kl. 8281, male, Niederhoppen a. d. Wied, Germany, 14. 12. 1897; Coll. Kl. 8282, female, Brochenbach a. d. Wied, 15.12.1897; Coll. Kl. 8283, male, Neustadt a. d. Wied, Germany, 03.11.1898, alle leg. Schneider.

Name first mentioned in Ornis Germanica, but a nomen nudum there. A large type series elaborately described in Falco (1944: 4), but no type specimen designated and series not specified. Fourteen skins from ZFMK mentioned, but not to be identified. – Dickinson (2003): *Tetrastes bonasia rhenana*.

FALCONIDAE

Falco caucasicus Kleinschmidt, 1907
Falco 3: 62.

Lectotype: Coll. Kl. 7120, female ad., Wladikaukas, NE Caucasus, 08.01.1907, per W. Schlüter;

Paralectotype: Coll. Kl. 7119, female ad., Prochladnaja, Terek region, Caucasus, 17.01.1900, per W. Schlüter.

No types were designated in the original publication, in the Catalogue (Kleinschmidt 1935–1943: 152) eight specimens (Coll. Kl. 7121–7125) are listed as *caucasicus*, Nr. 7120 marked as type in the catalogue, but Nr. 7119 labelled as “type specimen”. Illustrated in Berajah, Falco Peregrinus: plate 27 (1914). – Dickinson (2003): *Falco peregrinus brookei* Sharpe, 1873.

Falco rudolfi Kleinschmidt, 1909
Falco 5: 19.

Holotype: Coll. Kl. 7111, female, Hokodadi, N Japan, 04.02.1908, leg. Thielemann. – Dickinson (2003): *Falco peregrinus pealei* Ridgway, 1874.

Falco Peregrinus rhenanus Kleinschmidt, 1912
Berajah, Falco Peregrinus: plate 09.

Iconotype: Plate 09 in Berajah.

Lectotype: Coll. Kl. 7053, female, rock face „Rabenley“, Altenahr/ Rhineland, 14.05.1897, leg. Kleinschmidt.

The species was described in 1912 by measurements given on the plate and in 1916 in Berajah (Kleinschmidt 1916: 42–43) in the text.

Several skin specimens are listed in the Catalogue (Kleinschmidt 1935–1943: 149; 150), Coll. Kl. 7048, Coll. Kl. 7053, Coll. Kl. 7059–7074, No. 7053 is designated as „type specimen“ (Kleinschmidt 1935–1943: 154) and labelled as such. – Dickinson (2003): *Falco peregrinus peregrinus* Tunstall, 1771.

Falco Peregrinus scandinaviae Kleinschmidt, 1915
Berajah, Falco Peregrinus: plate 33.

Iconotype: plate 33 in Berajah.

Lectotype: Coll. Kl. 7051, female ad., Upland, Sweden, 03.05.1896, leg. Kolthoff, per Schlüter.

The species was described in 1915 by measurements given on the plate and in 1916 in Berajah (Kleinschmidt 1916: 46–47) in the text. Eight skin specimens are listed in the Catalogue (Kleinschmidt 1935–1943: 149–151), Coll. Kl. 7051, labelled as “type specimen”. – Dickinson (2003): *Falco peregrinus peregrinus* Tunstall, 1771.

Falco Peregrinus Heinrichi Kleinschmidt, 1933
Kurzgef deutsche Rassenkunde: 24 and plate 2.

Holotype: Coll. Kl. 7143, male, “Celebes”, 24.03.1933, perished in the Zoological Garden Berlin, leg. Heinrich. – Dickinson (2003): *Falco peregrinus heinrichi*.

Falco kreyenborgi Kleinschmidt, 1929
Falco 25: 33–35

Lectotype: Coll. Kl. 7144, male ad., caught at Punta Arenas Magallanos, S Chile; received on 22.10.1932 from the Zoological Garden Münster via Carlos Strauch.

No types were designated in the publication, only in the Catalogue (Kleinschmidt 1935–1943: 153) and on label. Two other specimens are housed at the Zoological Museum Münster. This form is assigned today as a light phase to *Falco peregrinus cassini* Sharpe, 1873 (Ellis & Garat 1983, Auk 100: 269 et seq.)

Cerchneis tinnunculus canariensis Koenig, 1889
J Ornithol 37: 263.

Lectotypes: ZFMK A.II.12.a².δ., male, Villa Orotava, Tenerife, 6.04.1889 and ZFMK A.II.12.a².ζ., female, Villa Orotava, Tenerife, 10.02.1889, all leg. A. Koenig.

Further 16 specimens from Tenerife and the same year are listed in the unpublished catalogue of the ZFMK: ZFMK A.II.12.a².α, male, Agua Manza, Tenerife, 12.01.1889 (in the AMNH, New York); ZFMK A.II.12.a².β, male, Agua Manza, Tenerife, 21.02.1889; ZFMK A.II.12.a².γ, male, Puerto Orotava, Tenerife, 08.01.1889; ZFMK A.II.12.a².ε, female, Puerto Orotava, 28.01.1889; ZFMK A.II.12.a².η, female, Puerto Orotava, Tenerife, 08.01.1889; ZFMK A.II.12.a².θ, female juv., Villa Orotava, Tenerife, 10.01.1889; ZFMK A.II.12.a².ι, female, Villa Orotava, Tenerife, 10.01.1889; ZFMK A.II.12.a².κ, male juv., Icod el Alto, Tenerife, 15.01.1889; ZFMK A.II.12.a².λ, male, Orotava, Tenerife, 17.01.1889; ZFMK A.II.12.a².μ, female, Orotava, Tenerife, 23.01.1889; ZFMK A.II.12.a².ν, male juv., Icod el Alto, Tenerife, 27.01.1889; ZFMK A.II.12.a².ξ, female juv., Sta. Ursula, Tenerife, 07.02.1889; ZFMK A.II.12.a².ο, male juv., Villa Orotava, Tenerife, 10.02.1889; ZFMK A.II.12.a².π, female juv., Puerto Orotava, Tenerife, 12.02.1889; ZFMK A.II.12.a².ρ, male, Palma, 25.03.1889; all leg Koenig and ZFMK A.II.12.a².ς, female juv., bought from P. Schmitz, Estreito, Madeira, 14.09.1889. Two specimens labelled as syntypes in the collection and marked in the catalogue. – Dickinson (2003): *Falco tinnunculus canariensis*.

Falco tinnunculus ultratinnunculus Kleinschmidt, 1929
Falco 25: 35.

?Holotype: Coll. Kl. 7451, male ad., Wladikaukas, Caucasus, 20.10.1913. No collector specified.

Type designated to “the very old male”, no specification in the text or catalogue.

Paratypes: Coll. Kl. 7452, male ad., Wladikaukas, 21.02.1914; Coll. Kl. 7453 female ad., Wladikaukas, 4.10.1912. – Dickinson (2003): *Falco tinnunculus tinnunculus* Linnaeus, 1758.

Falco Hierofalco erlangeri Kleinschmidt, 1901
Aquila 8: 34–38, figured plate 1 and 3.

Holotype: Coll. Kl. 7022, Djebel Sidi Ali ben Aoun, Tunisia, 06.04.1897, leg. Hilgert.

Paratype: Coll. Kl. 7021, male, same locality, 12.04.1897, leg. Hilgert; Coll. Kl. 7023, female ad., Tanger, Morocco, 14.08.1897, per Schlüter; 2 specimens from the Collection of A. Koenig not to be traced; see also *Falco Hierofalco tschusii*.

The subspecies was first illustrated by A. Koenig, (1898, J. Ornithol: plate 09, figure 1–5) without him realizing the new form. Described by Kleinschmidt from a larger series of six males and five females: two specimens from the Hungarian National Museum; one from Museum Carlo Erlanger and two from living birds in the aviaries of A. Koenig, Bonn. – Dickinson (2003): *Falco biarmicus erlangeri*.

Falco Hierofalco tschusii Kleinschmidt, 1907
Falco 3: 103.

Holotype: Coll. Kl. 7023, female ad., Tanger, Morocco, 14.08.1897, per Schlüter.

In Catalogue defined by Kleinschmidt (1935–1943: 148) as synonym of *Falco biarmicus erlangeri*, after considering it to be a paratype of *F. H. erlangeri* in 1901. – Dickinson (2003): *Falco biarmicus tanypterus* Schlegel, 1843.

Falco Hierofalco aralocaspius Kleinschmidt, 1939
Falco 35: 28.

Holotype: Coll. Kl. 7012, “female” ad., “Linkoran”, 10.01.1895, per Floericke.

In the brief description no details on material used are given. In the “Katalog” several specimens are recorded as *aralocaspius*, Coll. Kl. 7009–7011, 7013–7014, Russia, Caucasus, but not marked as paralectotypes. – Dickinson (2003): *Falco cherrug cherrug*.

Falco christiani-ludovici Kleinschmidt, 1917
Falco 13: 9.

Holotype: Coll. Kl. 7337, male juv., Wladikaukas, Caucasus, 12.11.1910, per Schlüter.

Actually considered as nom. nov. for *Falco pallidus* (Sushkin, 1900), because Kleinschmidt presumed it to be preoccupied two times by both *Tinnunculus alaudarius pallidus* A.E. Brehm, 1866 and *Falco pallidus* (Schlegel and Susemihl, 1839–1851). Contrary to Kleinschmidt, Brehm’s name is a nomen nudum according to Vaurie (1965) and *Falco pallidus* (Schlegel & Susemihl) refers – like *Falco pallidus* Schinz, 1840 – to *Circus pallidus* Sykes, 1832. – Dickinson (2003): *Falco columbarius pallidus* (Sushkin, 1900).

Falco alfred-edmundi Kleinschmidt, 1917
Falco 13: 9.

Holotype: Coll. Kl. 7341, female, N Iceland, 6.09.1909, per Schlüter. – Dickinson (2003): *Falco columbarius subaeson* C. L. Brehm, 1827.

ACCIPITRIDAE

Accipiter Palumbarius caucasicus Kleinschmidt, 1922
Berajah 4: 5.

Lectotype: Coll. Kl. 7790, male ad., Wladikaukas, Caucasus, 11.11.1913;

Paralectotypes: Coll. Kl. 7791, male ad., Wladikaukas, Caucasus, 15.01.1914; Coll. Kl. 7792, female, Wladikaukas, 7.03.1914, all per Schlüter.

Described after three specimens with no type designated in the original description, but only these three skins in the collection. – Dickinson (2003): *Accipiter gentilis marginatus* (Piller & Mitterpacher, 1783).

Astur gentilis arrigonii Kleinschmidt, 1903
Orn. Monatsber. 11: 152.

Syntypes: Coll. Kl. 7788, female ?, St. Cosinus, Lanusei, Sardinia, 14.04.1903; Coll. Kl. 7789, male ad., Leni, Barbagia, Sardinia, 24.04.1902, leg. Meloni.

Described after five specimens, whereabouts of other specimens unknown. – Dickinson (2003): *Accipiter gentilis arrigonii*.

Accipiter gentilis kleinschmidtii Jordans, 1950
Syll Biol Festschr Kleinschmidt: 178.

Holotype: ZFMK 46.343, male ad., Linares, Salamanca, Spain, 16.05.1943, leg. Grün.

Paratypes: ZFMK 46.344, female, Linares, Salamanca, Spain, 12.05.1943; ZFMK 46.345, female, Linares, Salamanca, Spain, 23.05.1938, all leg. Grün. – Dickinson (2003): *Accipiter gentilis arrigonii* (Kleinschmidt, 1903).

Accipiter nisus peregrinoides Kleinschmidt, 1921
In Grote (1921): Aus der orn. Literatur Russlands (supplement to Falco): 56.

?Lectotype: Coll. Kl. 7926, female juv., Rossitten, 20.10.1921, leg. Thienemann.

No specification given in first description; mention of an old female on migration, specimen illustrated in Proceedings IV Intern. Ornithol. Congr. Not tracable. Also an old male mentioned in first description from the collection of A. Koenig, without specifying a locality or date. In Kleinschmidt (1935–1943: 185) 39 specimens are listed under *peregrinoides*. – Dickinson (2003): *Accipiter nisus nisus* (Linnaeus, 1758).

Accipiter nisus Salamancae Jordans & Steinbacher, 1941
Ann Nat Hist Mus Wien 53: 238.

Holotype: ZFMK 38.528, female ad., Linares de Riofrio, Salamanca, Spain, 10.06.1938, leg. Grün.

Paratypes: ZFMK 38.527, male, Linares de Riofrio, Salamanca, Spain, 30.08.1938; ZFMK 38.561, female, 05.08.1938, locality and collector as above; ZFMK 38.562, female, 05.08.1938, locality and collector as above; ZFMK A.II.9.a.γγγγγγγγ, female, Mosqueruela, 06.10.1930; ZFMK A.II.9.a.λλλλλλλλ, female, Mosqueruela, 04.09.1930; ZFMK A.II.9.a.ξξξξξξξξ, male, Linares, 21.08.1937; ZFMK A.II.9.a.οοοοοοοο, female, Linares des Riofrio, 02.08.1937, all leg. Grün. – Dickinson (2003): *Accipiter nisus nisus* (Linnaeus, 1758).

Accipiter wolterstorffi Kleinschmidt, 1901
Orn Monatsber 9: 168.

Holotype: Coll. Kl. 8037, female, Lanusei, Sardinia, 18.12.1900, leg. Wolterstorff.

Paratype: Coll. Kl. 8038, pull. male, caught from the aerie, Lanusei, Baulacci, 19.07.1900, leg. Wolterstorff.

Described from a larger series of another eleven specimens, not specified; paratype identified by label in collection. – Dickinson (2003): *Accipiter nisus wolterstorffi*.

Accipiter nisus galliae Kleinschmidt, 1917
Falco 13: 24.

Lectotype: Coll. Kl. 8032, female juv., Thugny, Ardennes, France, 22.02.1917, leg. Bacmeister.

Paralectotype: Coll. Kl. 8033, female, Aussonce, Ardennes, 05.01.1917.

No types defined, very sparse description. – Dickinson (2003): *Accipiter nisus nisus* (Linnaeus, 1758).

Buteo zimmermannae Ehmcke, 1893
J Ornithol 41: 117.

?Holotype: Coll. Kl. 7606, female, Sassupönen, Gumbinnen, East Prussia, (Russia), 21.04.1892, leg. Schwede.

Also Coll. Kl. 7607, male juv., identified as “Cotypus”. Described also from comparative material from the collection of the MfN, Berlin. – Dickinson (2003): *Buteo buteo buteo* (Linnaeus, 1758).

Buteo vulgaris hispaniae Jordans, 1940
Falco 35: 13.

Syntypes: ZFMK A.II.19.a⁶.α. and β., 2 males, Linares, Salamanca, Spain, 27.04.1935 and Teruel, Mosqueruela, 18.09.1930, leg. Grün.

Paratypes: ZFMK A.II.19.a⁶.γ., female, Mosqueruela, 05.09.1930; ZFMK A.II.19.a⁶.δ., female, Linares, 26.07.1934; ZFMK A.II.19.a⁶.ε., female, Linares, 24.08.1934; ZFMK 38.519, female, Linares, 02.07.1938; ZFMK 38.866, male, Linares, 05.08.1938, all leg. Grün. – Dickinson (2003): *Buteo buteo buteo* (Linnaeus, 1758).

Buteo vulgaris vulpicolor Kleinschmidt, 1938
Falco 34: 72.

Holotype: Coll. Kl. 7597, o, Pipret Swamps, Russia, 14.08.1917, leg. Rüdiger. – Dickinson (2003): *Buteo buteo vulpinus* (Gloger, 1833).

Buteo vulgaris ultravulpinus Kleinschmidt, 1938
Falco 34: 73.

Holotype: Coll. Kl. 7619, Caucasus, **lost**. – Dickinson (2003) presumably: *Buteo buteo menetriesi* Bogdanow, 1879.

Buteo vulgaris milanoides Kleinschmidt, 1938
Falco 34: 73.

Holotype: Coll. Kl. 7628, „female, Naljštschik, 07.” Caucasus, (without year), **lost**. – Dickinson (2003): *Buteo buteo menetriesi* Bogdanow, 1879.

Buteo vulgaris buteosimilis Kleinschmidt, 1938
Falco 34: 73.

Lectotypes: Coll. Kl. 7593, male juv., Bukowina, Romania, 19.09.1892, leg. Tschusi; Coll. Kl. 7594–7595, mated pair, 01.05.1871, Uman, S Russia, leg. Holtz, per C. v. Erlanger.

Neither in the original description nor in the Catalogue (Kleinschmidt 1935–1943) type specimens were defined; lectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Buteo buteo buteo* (Linnaeus, 1758).

Circus pygargus abduellae Floericke, 1896
Orn Monatsber 4: 155.

Lectotype: Coll. Kl. 8097, male ad., Kermene, E Kaspi, Turkmenia, 22.05.1896, leg. Floericke.

Described from a series of eight specimens, of which only four were skinned; Lectotype designated by Kleinschmidt (1935–1943: 190). According to the label three further specimens mentioned in the original description are housed in the museum at Tiflis. Therefore, this specimen should come from the Berlepsch collection.

OTIDIDAE

Choriotis arabs geyri Niethammer, 1954
Bonn zool Beitr 5: 193.

Lectotype: ZFMK 54.565, male, 250 km NW of Agades, Niger (Sahara). 30.01.1954, leg. G. Niethammer No 511; Second specimen of the description lost. – Dickinson (2003): *Choriotis arabs geyri*.

Afrotis afra böhmeri Hoesch & Niethammer, 1940
J Ornithol 88; Sonderheft: 124.

Holotype: ZFMK 39.789, male, E side of the Brandberg, Namibia, 23.09.1938, leg. G. Niethammer. – Dickinson (2003): *Afrotis afra* (Linnaeus, 1758).

RALLIDAE

Gallinula chloropus vestigialis Clancey, 1939
Bull BOC 59: 70.

Paratype: ZFMK 50.131, male, Renfrewshire, Scotland, 15.01.1936, leg. Clancey.

Syntypes in Collection Clancey, RSME, Edinburgh and Collection Ticehurst; t.t. Near Bardowie, Stirlingshire, Scotland. A large series of unspecified skins from various museums was investigated. – Dickinson (2003): *Gallinula chloropus chloropus* (Linnaeus, 1758).

HAEMATOPODIDAE

Haematopus ostralegus occidentalis Neumann, 1929
Gefiederte Welt 58: 161.

Holotype: ZFMK M.VI.14.a¹.α., male, Auskerry, Orkney Islands, 03.10.1913, leg. Ticehurst No 1491. Type defined by Neumann not until 1932 (Anz Orn Ges Bayern 2: 148). – Dickinson (2003): *Haematopus ostralegus ostralegus* Linnaeus, 1758.

CHARADRIIDAE

Charadrius hiaticula harrisoni Clancey, 1949
Limosa 22: 319.

Bonn zoological Bulletin 59: 29–77

Paralectotypes: ZFMK 50.318–50.319, male, female, Daliburgh and Bornish, Outer Hebrides, 17. and 23.06.1947, leg. Clancey, in exchange for other specimens handed to the ZFMK.

In the original description only the holotype is designated. Status of ZFMK specimens taken from inventory and labels. If not included in *Ch. h. hiaticula* Linné, 1758, one might regard this form as nom. nov. for the preoccupied *Charadrius hiaticula major* Seebohm, 1885. Its type ought to be regarded then as lectotype for Seebohm's subspecies, for which no type specimen exists. Type stored within the Collection Clancey, RSME, Edinburgh, t.t. Rudha Ard-vule, Bornish, South Uist, Outer Hebrides. – Dickinson (2003): *Charadrius hiaticula hiaticula* Linnaeus, 1758.

GLAREOLIDAE

Rhinoptilus africanus erlangeri Niethammer & Wolters, 1966
Bonn zool Beitr 17: 159.

Holotype: ZFMK 39.736, female ad., 40 km E Cape Cross, Namibia, 25.09.1938, leg. G. Niethammer No 139.

Paralectotypes: ZFMK 39.737, female, Erongo, 28.10.1938; ZFMK 39.738, female, Omaruru, 27.09X.1938; ZFMK M.II.3.a.α., male, Kayas, 13.07.1934; ZFMK M.II.3.a.β., female, Kayas 15.07.1934; ZFMK G.II.3.a.γ., female, Ombutjomatamba, 30.08.1934; ZFMK M.II.3.a.δ., male, Ombutjomatamba, 08.03.1935, all leg. Hoesch; ZFMK 66.660, female, Hohenfels, Waterberg, 27.05.1931, leg. Maltzahn.

Described from a series of 14 specimens, of which five paratypes are not in the ZFMK. The name *Rhinoptilus a. sharpei* Erlanger, 1905, doesn't correspond to the subspecies above, it is in fact a synonym of *Rhinoptilus africanus africanus* (Temminck, 1807). – Dickinson (2003): *Rhinoptilus africanus erlangeri*.

ALCIDAE

Mormon arcticus meridionalis Jordans, 1914
Falco 10: 153.

Syntypes: ZFMK Q.I.7.a².γ., male, Bahia de Alcudia, Majorca, 07.04.1913; ZFMK Q.I.7.a².δ., female, Bahia de Alcudia, Majorca, 07.04.1913; leg. A. von Jordans, No 999–1000. – Dickinson (2003): *Fratercula arctica grabae* (C. L. Brehm, 1831).

Uria aalge hyerborea Salomonsen, 1932
Ibis Ser. XIII. 2: 130.

Holotype: ZFMK Q.I.1.a². ω., female ad., Bear Island, Scandinavia, 16.07.1907, leg. Koenig.

Paratypes: Of the 55 paratypes mentioned only 30 still exist; some of them are part of the permanent exhibition (diorama “Vogelfelsen” – “Bird rock”). – Dickinson (2003): *Uria aalge hyerborea*.

PTEROCLIDIDAE

Pterocles lichtensteini targius Geyr, 1916
Orn Monatsber 24 : 56.

Lectotypes: ZFMK L.I.1.c³.β. and δ., female, Oued Raris, Algeria, 16.04.1914. leg. Geyr.

Paralectotypes: 11 more individuals, ZFMK L.I.1.c³.α., male ad., Oued Raris, Algeria, 16.04.1914; ZFMK L.I.1.c³. γ. male, Oued Raris, 16.04.1914; ZFMK L.I.1.c³.ε., male, Amgid, Algeria, 21.04.1914; ZFMK L.I.1.c³.ζ, male, Amgid, Algeria, 21.04.1914; ZFMK L.I.1.c³.η., female, Amgid, Algeria, 21.04.1914; ZFMK L.I.1.c³.θ., male, Amgid, Algeria, 21.04.1914; ZFMK L.I.1.c³.ι., male, Oued Tidebar, Algeria, 24.04.1914 ; ZFMK L.I.1.c³.κ., male, Oued Tidebar, Algeria, 24.04.1914; ZFMK L.I.1.c³.λ., male, Oued Tidebar, Algeria, 25.04.1914; ZFMK L.I.1.c³.μ., male, Oued Tidebar, Algeria, 25.04.1914; ZFMK L.I.1.c³.ν., female, Oued Tidebar, Algeria, 25.04.1914; all leg. Geyr.

Originally described from a series of thirteen specimens. The type specimen labelled as such in the inventory of the ZFMK, – ZFMK L.I.1.c³.α., male ad., Oued Raris, 16.04.1914, – doesn't correspond to the type specimen named in the original description concerning location and date. The original description indicates a male, Quelle Tahart, 21.02.1914 – this specimen is apparently lost. – Dickinson (2003): *Pterocles lichtensteini targius*.

Pterocles senegallus remotus Neumann, 1934
Verh Orn Ges Bayern 20: 471.

Paratype: ZFMK I.I.2.a¹.β., female, Kulchi, Kunaria, W India, 20.02.1934, leg. Archer.

Holotype: male, Kunaria at Kutch, Nw-India, 20.02.1934, leg G. Arcker; supposedly at the MfN, Berlin.

Described from a series of four males and two females, whereabouts of other specimens not known. – Dickinson (2003): *Pterocles senegallus* (Linnaeus, 1771).

COLUMBIDAE

Streptopelia turtur loëi Jordans, 1923
Falco 19, Sonderheft: 5.

Holotype: ZFMK K.I.4.a².α. male, Albufera, Majorca, 07.06.1921., leg. A. von Jordans No 2914.

Paratypes: ZFMK K.I.4.a².β., male, Alcudia, Majorca, 10.05.1921; ZFMK K.I.4.a². γ., female, Alcudia, Majorca, 06.05.1921; ZFMK K.I.4.a². δ., female, 31.05.1921; all leg. A. von Jordans. – Dickinson (2003): *Streptopelia turtur turtur* (Linnaeus, 1758).

Turtur turtur hoggara Geyr, 1916
Orn Monatsber 24: 59.

Holotype: ZFMK K.I.4.b¹.α., male ad., Ideles, at the northern edge of the Hoggara Plateau, Algeria, 24.03.1914, leg. Geyr. Described from one single specimen. – Dickinson (2003): *Streptopelia turtur hoggara*.

Columba livia targia Geyr, 1916
Orn Monatsber 24: 58.

Holotype: ZFMK K.I.1.ab².α., male ad., Ain Tahart, Algeria, 21.02.1914;

Paratypes: ZFMK K.I.1.ab².β., female, Ain Tahart, Algeria, 21.02.1914; ZFMK K.I.1.ab².γ., male, Ideles, Algeria, 25.03.1914; ZFMK K.I.1.ab².δ., male, Amgid, Algeria, 14.02.1914; ZFMK K.I.1.ab². ε., female, Ain Tahart, Algeria, 21.02.1914; ZFMK K.I.1.ab².ζ., female, Amgid, Algeria, 14.02.1914; ZFMK K.I.1.ab².η., male, Ain Tahart, Algeria, 24.04.1914; ZFMK K.I.1.ab².θ., female, Amgid, Algeria, 14.02.1914; ZFMK K.I.1.ab².ι., female, Ain Tahart, Algeria, 21.02.1914; all leg. Geyr.

In the collection of the ZFMK eight specimens are registered as *targia*, five males and three females, in the description only three males and two females are mentioned. – Dickinson (2003): *Columba livia targia*.

CUCULIDAE

Centropus heuglini Neumann, 1911

In Koenig, 1910: Verhandl. V. Intern. Orn. Kongr. Berlin: 504.

?Paratypes: ZFMK C.I.3.b.α.-δ., 2 males, female, male juv., Bahr-el-Gazal, Lado and Bahr-el-Zeraf, 28.02; 07., 12. and 20.03.1910, Egyptian Sudan, leg. le Roi, Koenig, Nolda.

The specimens listed above were labelled as syntypes by Koenig in the ZFMK inventory; their status as paratypes is questionable. Type specimen is the female of the SMNS, Stuttgart, No 5662 collected by Heuglin at Bahr el Ghazal, 02.1866, another paratype No 1916, a juvenile specimen from the collection of Herzog Paul v. Württemberg, Fazoqla, leg. 1843. – Dickinson (2003): *Centropus monachus fischeri* Reichenow, 1887.

TYTONIDAE

Strix ernesti Kleinschmidt, 1901

Orn Monatsber 9: 168.

Holotype: Coll. Kl. 6945, male, Loceri Ogliastra, Sardinia, 17.04.1901.

Paratypes: Not defined, the Catalogue (Kleinschmidt 1935–1938) lists eight specimens as potential paratypes for *S. ernesti* – Dickinson (2003): *Tyto alba ernesti*.

Tyto alba kleinschmidti Jordans, 1923

Falco 19, Sonderheft: 5.

Holotype: ZFMK A.III.13.a⁶.γ., male, Alcudia, Majorca, 09.05.1921, leg. A. von Jordans No 3098.

Paratypes: ZFMK A.III.13.a⁶.α., male, Alcudia, Majorca, 07.04.1913; ZFMK A.III.13.a⁶.β., female, Alcudia, Majorca, 09.05.1913; ZFMK A.III.13.a⁶.γ., male, Alcudia, Majorca, 09.05.1921; ZFMK A.III.13.a⁶.δ., female, Alcudia, Majorca, 22.05.1921; ZFMK A.III.13.a⁶.ε., male, Alcudia, Majorca, 24.05.1921; ZFMK A.III.13.a⁶.ζ., male, Alcudia, Majorca, 09.05.1921. – Dickinson (2003): *Tyto alba alba* (Scopoli, 1769).

Strix hostilis Kleinschmidt, 1915

Falco 11: 18.

Syntypes: Coll. Kl. 6952, male, Hurst, Sussex, England, 08.1894, and Coll. Kl. 6953, female, Bramber, Sussex, (with parts of the skeleton), 10.09.1897, both per Brazenor, Brighton. – Dickinson (2003): *Tyto alba alba* (Scopoli, 1769).

Strix flammea rhenana Kleinschmidt, 1906

Berajah, Strix Flammea: 4: 20.

Lectotype: Coll. Kl. 6920, female, Kornsand, Rhine near Darmstadt, 03.11.1899, leg. Kleinschmidt.

Paralectotypes: Coll. Kl. 6921–6930, 4 males, 6 females, same location, 10.1892; 03., 10., 11.1899, 09., 10.1901 and 04.1903, leg. Kleinschmidt.

Named by Kleinschmidt because Brehm's type (see below) is thought to refer to a migrant not native to Middle Germany. No type designated in the original description; type series designated in the catalogue (Kleinschmidt 1935–1943: 147); lectotype by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Tyto alba guttata* (C.L. Brehm, 1831).

Tyto alba (Strix Flammeata) hauchecornei Kleinschmidt, 1940

Falco 36: 59.

Syntype: Coll. Kl. 6978, o, caught in Chile, perished in the Cologne Zoological Garden.

The other syntype is housed in the SNS, Dresden, C 48381. – Dickinson (2003): *Tyto alba tuidara* (J. E. Gray, 1829).

STRIGIDAE

Otus leucotis Margarethae Jordans & Neubaur, 1932

Falco 28: 9.

Holotype: ZFMK A.III.10.e¹.α., male, Zankab, Bahr-el-Abiad, Sudan, 07.04.1910, leg. le Roi.

Paratypes: ZFMK A.III.10.e¹.β., male, Zankab, Bahr-el-Abiad, Sudan, 07.04.1910; ZFMK A.III.10.e¹.γ., female ad., Zankab, Bahr-el-Abiad, Sudan, 07.04.1910. – Dickinson (2003): *Ptilopsis leucotis* (Temminck, 1820).

***Otus scops mallorcae* Jordans, 1923**

Falco 19: 5.

Holotype: ZFMK A.III.10.a¹.ε., female, Alcudia, Majorca, 22.V.1921, leg. A. von Jordans No 3045.

Paratypes: ZFMK A.III.10.a¹.β., male, Alcudia, Majorca, 05.04.1913; ZFMK A.III.10.a¹.γ., male, Alcudia, Majorca, 07.04.1913; ZFMK A.III.10.a¹.δ., female, Alcudia, Majorca, 09.04.1913; ZFMK A.III.10.a¹.ζ., male, Alcudia, Majorca, 09.06.1921; ZFMK A.III.10.a¹.η., male, Alcudia, Majorca, 11.06.1921; ZFMK A.III.10.a¹.θ., male, Alcudia, Majorca, 13.06.1921, all leg. A. von Jordans.

Originally a series of eleven specimens is mentioned; one exchanged with AMNH, New York, two specimens are untracable. – Dickinson (2003): *Otus scops mallorcae*.

***Athene noctua Grüni* Jordans & Steinbacher, 1941**

An. Nat Hist Mus Wien 52: 234.

Holotype: ZFMK 40.238, female ad., Lagos, Portugal, 13.04.1939, leg. Grün.

Paratypes: ZFMK 40.230, male, Lagos, Portugal, 18.05.1939; ZFMK 40.231, female, Lagos, Portugal, 01.05.1939; ZFMK 40.232, female, Lagos, Portugal, 25.04.1939; ZFMK 40.233, female, Lagos, Portugal, 02.05.1939; ZFMK 40.234, female, Lagos, Portugal, 27.03.1939; ZFMK 40.235, female, Lagos, Portugal, 18.04.1939; ZFMK 40.236, male, Lagos, Portugal, 22.04.1939; ZFMK 40.237, female, Lagos, Portugal, 17.04.1939; ZFMK 40.239, female, Lagos, Portugal 19.05.1939, all leg. Grün. – Dickinson (2003): *Athene noctua vidalii* A. E. Brehm, 1857.

***Strix Athene sarda* Kleinschmidt, 1907**

Falco 3: 65.

Lectotype: Coll. Kl. 6748, female, Ilini, Sardinia, 18.10.1901.

Paralectotype: Coll. Kl. 6749, female, Ogliastro, Sardinia, 04.04.1907.

Described from three specimens, no type specimen defined in the original description, in Catalogue (Kleinschmidt 1935–1943: 143) only two specimens mentioned with status as Holo- and Cotypus. – Dickinson (2003): *Athene noctua* (Scopoli, 1769).

***Strix Athene ruficolor* Kleinschmidt, 1907**

Falco 3: 65.

Lectotype: Coll. Kl. 6754, male, Marrakesch, Morocco, 28.12.1899; leg. Floericke.

Paralectotypes: Coll. Kl. 6755, female juv., Drenkat, 12.12.1899; Coll. Kl. 6756, o ad., Doukalla, 17.11.1899, all leg. Floericke.

Described from nine specimens, no type designated in original description or in his Catalogue, Kleinschmidt (1938–1943: 144). – Dickinson (2003): *Athene noctua glaux* (Savigny, 1809).

***Strix saharae* Kleinschmidt, 1909**

Falco 5: 19.

Holotype: Coll. Kl. 6757, o, Moulaina, Algerian Sahara, 20.03.1903, leg. Flükiger?

Paralectotypes: Coll. Kl. 6758, male, Biskra, Algeria, 12.12.1903; Coll. Kl. 6759, male, Biskra, Algeria, 15.03.1904; Coll. Kl. 6760, male, Biskra, Algeria, 30.01.1903, all leg. Flükiger.

Only type designated in original description, no number of paratypes given; paralectotypes designated in his Catalogue (Kleinschmidt 1938–1943: 144). – Dickinson (2003): *Athene noctua saharae*.

***Bubo africanus kollmannspergeri* Niethammer, 1957**

Bonn zool Beitr 8: 287.

Holotype: ZFMK 57.1900, male, Guelta Basso, Ennedi, 11.09.1954, leg. Kollmannsperger.

Described from a single specimen. – Dickinson (2003): *Bubo cinerascens* Guérin-Méneville, 1843.

***Strix aluco clanceyi* Jordans, 1950**

Syll Biol, Festschr. Kleinschmidt: 176.

Holotype: ZFMK A.III.12.a².ε., male, Linares, Salamanca, Spain, 03.04.1935, leg. Grün.

Paratypes: ZFMK A.III.12.a².α., male, Mosqueruela near Teruel, Spain, 23.09.1930; ZFMK A.III.12.a².β., female, Mosqueruela near Teruel, Spain, 29.09.1930; ZFMK A.III.12.a².γ., male, Mosqueruela near Teruel, Spain, 09.09.1930; ZFMK A.III.12.a².δ., male, Mosqueruela near Teruel, Spain, 29.09.1930; ZFMK A.III.12.a².ζ., female,

Linares, Spain, 07.04.1935; ZFMK 36.518, male, Linares, Salamanca, Spain, 16.03.1938; ZFMK 46.294, female, Lagunilla, Spain, 25. 12. 1940; ZFMK 46.295, female, Linares, Spain, 25.12.1940; ZFMK 46.296, female, Linares, Spain, 26.07.1941; all leg. Grün. – Dickinson (2003): *Strix aluco sylvatica* Shaw, 1809.

Glaucidium bolivianum König, 1991
Ökol Vogel 13: 36, Abb. 10, p. 38.

Paratype: ZFMK 54.684, male, brown morph, Lambate, La Paz province, Bolivia, 2300m, 14.09.1953.

The holotype is at the SMNS, Stuttgart. – Dickinson (2003): *Glaucidium bolivianum*.

Glaucidium peruanum König, 1991
Ökol Vogel 13: 57, Abb. 29, p. 58.

Paratypes: ZFMK 54.1398, female, Lima, Peru, 01.12.1945; ZFMK 60.191, female, w Andean slopes, C Peru, 1500m.

The holotype is stored at the BMHM, Tring. – Dickinson (2003): *Glaucidium peruanum*.

CAPRIMULGIDAE

Nyctiphrynus ocellatus bergeni Niethammer, 1953
Bonn zool Beitr 4: 285.

Holotype: ZFMK 52.229, male ad., Quiquibey, Bolivia, 13.09.1951, leg. G. Niethammer.

Described from one specimen. – Dickinson (2003): *Nyctiphrynus ocellatus ocellatus* (Tschudi, 1844).

Caprimulgus inornatus malbranti Niethammer, 1957
Bonn zool Beitr 8: 279.

Holotype: ZFMK 57.1901, male ad., rock between Wadi Rei and Wadi Basso, Ennedi, Chad, 03.09.1957, leg. Kollmannsperger.

Of four males and four females collected, only the holotype has been prepared. – Dickinson (2003): *Caprimulgus inornatus* Heuglin, 1869.

APODIDAE

Streptoprocne zonaris künzeli Niethammer, 1953
Bonn zool Beitr 4: 286.

Holotype: ZFMK 52.231, male, Puri (1200 m), Yungas of La Paz, Bolivia, 30.10.1951, leg. Künzel.

Paratypes: ZFMK 52.232, female, Puri (1200 m), Yungas of La Paz, Bolivia, 30.10.1951; ZFMK 53.49, female, Puri (1200 m), Yungas of La Paz, Bolivia, 18.11.1952, ZFMK 53.50, female, Puri (1200 m), Yungas of La Paz, Bolivia, 18.11.1952, all leg. Künzel. – Dickinson (2003): *Streptoprocne zonaris kuenzeli*.

TROCHILIDAE

Phaethornis koepckeae Weske & Terborgh, 1977
Condor 79: 143–147.

Paratype: ZFMK 83.66, female, Cerros del Sira, Cabezas del Rio Lullapichis, Selva tropical, ca. 650 m AMSL, Peru, 24.07.1971, leg. Koepcke and Terborgh. Original No Kp 1959c.

Holotype at the AMNH, No 820872, female ad., Cerros del Sira, 9°30'S, 74°47'W, Depto. Huánuco, Peru. Two remaining paratypes are stored in Hamburg (ZMH) and Lima (MHN Javier Prado). – *Phaethornis koepckeae* is systematically allocated in the proximity of *Phaethornis bourcieri* and *Phaethornis philippii*. – Dickinson (2003): *Phaethornis koepckeae*.

Thalurania nigricapilla Valdés-Velásquez & Schuchmann, 2009
Ornithol Anz 48: 144–145., Abb. 2

Holotype: ZFMK 81.384, adult male, Lake Calima (Laguna de Calima, Embalse de Calima), (03°50'N, 76°30'W), 50km N of Cali, Valle del Cauca, Colombia, leg. Schuchmann.

Paratype: ZFMK 81.383, adult male, forest NW of Yotoco on road to Puente Tierra at Lake Calima, vicinity of Alto de los Torros (03°53'N, 76°27'W), Valle del Cauca, Colombia, leg. Schuchmann.

Only these two specimens were examined.

Trochilus Adelomyia intergreiens Kleinschmidt, 1943
 Katalog meiner ornithologischen Sammlung: 222.

Holotype: Coll. Kl. 8957, Central Cordillera, Rio Toche, Quindiu-Pass and Canon del Monte Tolima, 1700–2400 m AMSL, Colombia, 20.09.1909, leg. Fassl.

Paralectotypes: Coll. Kl. 8958–8962, data like holotype.

In the short original description only the holotype is designated; paralectotypes designated by Schuchmann (1984). – Dickinson (2003) presumably: *Adelomyia melanogenys cervina* Gould, 1872.

Trochilus Adelomyia ultracervinus Kleinschmidt, 1943
 Katalog meiner ornithologischen Sammlung: 222.

Holotype: Coll. Kl. 8963, St. Antonio, W Cordillera, 2100 m AMSL, Colombia, 08.06.1909, leg. Fassl.

Paralectotypes: Coll. Kl. 8964–8968, data like holotype.

In the short original description only the holotype is designated; paralectotypes designated by Schuchmann (1984). – Dickinson (2003) presumably: *Adelomyia melanogenys cervina*.

Lafresnaya lafresnayi longirostris Schuchmann, Weller & Wulfmeyer, 2003
 Orn Neotropical 14: 160.

Holotype: Coll. Kl. 9569, Madim, Paso del Quindio, 2500m, Colombia, 29.09.1909, leg. A. H. Fassl.

Paratypes: Coll. Kl. 9570, Rio Toche, Paso del Quindio, Tolima, 2100m, 10.10.1909; Coll. Kl. 9572, Volcancito, Paso del Quindio, all leg. Fassl.

Coeligena lutetiae albimaculata Sanchez-Osés, 2006
 Bull Brit Orn Cl 126: 6–7.

Holotype: ZFMK 85.87, male, Crater of Volcán Pichincha, Ecuador (00°10'S, 78°33'W), deposited by Schröder in the Darnedde Collection November 1912.

Paratypes: ZFMK 85.76, 85.78–79, 3 males, Santo Domingo de los Colorados, Ecuador; ZFMK 85.81–84, 4 females, Santo Domingo de los Colorados, Ecuador; ZFMK 8589, Campamento Pailón, Carchi, Ecuador (00°29'S, 77°55'W), all deposited in the Darnedde Collection by Schröder in November 1912.

Eustephanus galeritus robinsoni Darnedde, 1943
 Falco 37: 18.

Lectotype: Coll. Darnedde 10248, male, Juan Fernandez Islands, Chile, 04.1927, leg. Castillo.

See next taxon.

In the short original description no type specimen was defined. Lectotype designated by Schuchmann (1984). – Supposedly Dickinson (2003): *Sephanoides fernandensis fernandensis* (King, 1831).

Eustephanus darneddei Kleinschmidt, 1943
 Falco 37: 18.

= *Eustephanus galeritus robinsoni* Darnedde, 1943 – renamed by Kleinschmidt, 1941 as *Eustephanus darneddei* because of *Ornismia* (= *Eustephanus* = *Sephanoides*) *robinsoni* Delattre & Lesson, 1839. Type specimen Coll. Darnedde 10248. – Supposedly Dickinson (2003): *Sephanoides fernandensis fernandensis* (King, 1831).

Trochilus Exortis fassli Kleinschmidt, 1943
 Katalog meiner ornithologischen Sammlung: 225.

Lectotype: Coll. Kl. 9723, male ad., Monte Socorro, Cali, W Cordillera, 3800 m AMSL, Colombia, 27.07.1909, leg. Fassl.

Paralectotypes: Coll. Kl. 9724–9727, 4 males, locality like holotype.

In the very short description Coll. Kl. Nos 9723–9727 are referred to the new taxon, no specifications are given. Lectotype and paralectotypes designated by Schuchmann (1984). – Dickinson (2003): *Heliangelus exortis* (Fraser, 1840).

Trochilus Caligula incommodus Kleinschmidt, 1943
 Katalog meiner ornithologischen Sammlung: 225.

Lectotype: Coll. Kl. 9670, male ad., St. Antonio, W Cordillera, 2000 m AMSL, Colombia, 17.04.1909, leg. Fassl.

Paralectotypes: Coll. Kl. 9671–9699, 6 males, 23 females, Sta. Magarita, W Cordillera, Colombia.

In the very short description Coll. Kl. Nos 9723–9727 are referred to the new taxon, no specifications are given. Lectotype and paralectotypes design. by Schuchmann (1984). – Dickinson (2003): *Ocreatus underwoodii incommodus*.

Ramphomicron microrhynchum bolivianum Schuchmann, 1984
Bull Brit Orn Cl 104: 7.

Holotype: ZFMK 81.367, male ad., Cocapata, Bolivia, 07.1980, leg. Cordier.

No paratypes exist. – Dickinson (2003): *Ramphomicron microrhynchum bolivianum*.

Chalcostigma herrani tolimae Kleinschmidt, 1927
Falco 23/1: 5.

Holotype: Coll. Kl. 9764, male ad., Monte Tolima, 4000 m AMSL, Colombia, 02.1910, leg. Fassl.

Paratypes: Coll. KL. 9765–9767, male ad., male immat., female, locality like holotype. – Dickinson (2003): *Chalcostigma herrani tolimae*.

COLIIDAE

Colius macrourus laeneni Niethammer, 1955
Bonn zool Beitr 6: 56.

Holotype: ZFMK 54.468, male, Baguezan, 150 km N Agades, Niger, 08.02.1954, leg. Laenen.

Paratypes: ZFMK 54.557 and 54.1051, 2 females, N Agades, Niger, 31.01.1954, leg. Laenen.

Described from a series of four males and three females; only three specimens found in the collection of ZFMK. – Dickinson (2003): *Urocolius macrourus laeneni* (Niethammer, 1955).

ALCEDINIDAE

Alcedo ispida*, var. *taprobana Kleinschmidt, 1894
Orn Monatsber 2: 126.

Lectotype: Coll. Kl. 6608, male, Kalawewe, Ceylon, 03.04.1889, leg. Geisler, per Schlüter.

Paralectotype: Coll. Kl. 6609, male, Kalawewe, Ceylon, 28.03.1889, leg. Geisler, per Schlüter.

The original description doesn't indicate a holotype. It was defined by Kleinschmidt (1935–1943: 140) in his Catalogue. – Dickinson (2003): *Alcedo atthis taprobana*.

Bonn zoological Bulletin 59: 29–77

MEROPIDAE

Merops orientalis flavoviridis Niethammer, 1955
Bonn zool Beitr 6:53.

Holotype: ZFMK 54.1031, male ad., Archei, Ennedi, Chad, 09.04.1954, leg. G. Niethammer No 241.

Paratypes: ZFMK 54.556, male, N Agades, Niger (Sahara), 04.02.1954 ; ZFMK 54.1030, male, Archei, Ennedi, Chad, 10.04.1954; ZFMK 80.360, male, Archei, Ennedi, Chad, 11.04.1954, all leg. G. Niethammer.

Described from a series of three males from Ennedi and four males from Agades; three further specimens untraceable. – Dickinson (2003): *Merops orientalis viridissimus* Swainson, 1837.

PICIDAE

Campethera tullbergi poensis Eisentraut, 1968
Bonn zool Beitr 19: 52.

Holotype: ZFMK 63.1342, female ad., Moka Valley, Fernando Poo, 21.01.1963, leg. Eisentraut No 879.

Paratype probably in SMNS, Stuttgart. – Dickinson (2003): preoccupied by *Campethera nivosa poensis* Alexander 1903; *Campethera tullbergi tullbergi* (Sjöstedt, 1892).

Dendrocopus minor hispaniae Jordans, 1939
Falco 34: 52.

Holotype: ZFMK 38.508, male ad., Linares de Riofrio, Salamanca, Spain, 02.04.1938, leg. Grün.

Paratypes: ZFMK 38.509, male, Linares de Riofrio, Salamanca, Spain, 30.03.1938; ZFMK 38.511, female, Linares de Riofrio, Salamanca, Spain, 25.03.1938; ZFMK 38.512, male, Linares de Riofrio, Salamanca, Spain, 27.12.1934; ZFMK 38.514, male juv., Linares de Riofrio, Salamanca, Spain, 08.07.1936; ZFMK 38.515, female juv., Linares de Riofrio, Salamanca, Spain, 09.07.1936; ZFMK 38.516, female, Lagunilla, Salamanca, Spain, 18.01.1934, all leg. Grün.

ZFMK 38.512 and 38.513 exchanged with Natural History Museum, Warsaw. – Dickinson (2003) presumably: *Dendrocopus minor buturlini* (E. Hartert, 1912).

Dryobates minor Heinrichi Jordans, 1940
Mitt Königl Naturwiss Inst Sofia, 13: 131.

Holotype: ZFMK 38.614, male ad., Kamtschyja, Bulgaria, 06.06.1935, leg. Heinrich, PMZ Warsaw No 290.

Paratype: ZFMK 38.615, same locality, 08.06.1935, leg. Heinrich.

Erroneously, registration number ZFMK 38.875 was published for the type specimen in the original description. – Dickinson (2003): *Dendrocopos minor buturlini* (E. Hartert, 1912).

Picus minor bacmeisteri Kleinschmidt, 1916
Falco 11: 14.

Lectotype: Presumably Coll. Kl. 6463, male, La Touraude, Département des Ardennes, France, 11.03.1916, leg. Bacmeister.

Described from three males and one female. In the original description no type specimen was defined, specimen even not labelled as type; lectotype designated by Rheinwald & van den Elzen (1984). – It is the only specimen with this name, in both the Collection Kleinschmidt in Bonn and in the Catalogue (Kleinschmidt 1935–1943: 137). – Dickinson (2003) presumably: *Dendrocopos minor hortorum* (C. L. Brehm, 1831).

Picus Minor silesiacus Kleinschmidt, 1917
Ornis Germanica (supplement of Falco) 1: 5.

Lectotype: Coll. Kl. 6452, male, Rothhaus a.d. Neisse, Silesia, 13.04.1894.

The very brief description “between *Picus Minor typominor* and *hortorum*” gives no type specimen. A single type specimen was designated by Kleinschmidt (1935–1943: 136) in his Catalogue, no paralectotypes were defined. – Dickinson (2003): *Dendrocopos minor hortorum* (C. L. Brehm, 1831).

Picus major arduennus Kleinschmidt, 1915
Falco 11: 12.

Lectotypes: Coll. Kl. 6396, male, Département des Ardennes, France, 04.04.1916; Coll. Kl. 6397, female, La Touraude, Département des Ardennes, France, 04.04.1916, leg. Bacmeister.

No types defined in the description, only specified in Catalogue (Kleinschmidt 1935–1943: 135). – Dickinson (2003): *Dendrocopos major pinetorum* (C. L. Brehm, 1831).

Picus major hispanus Schlüter, 1908
Falco 4: 11.

Syntypes: Coll. Kl. 6398, male, Sevilla, Spain, 14.01.1907; Coll. Kl. 6399 female, Espera, 12.02.1907; Coll. Kl. 6400 female, Sevilla, 13.09.1906, per W. Schlüter.

The third female defined in the description is not in the Coll. Kl. The male is labelled as “typus”. – Dickinson (2003): *Dendrocopos major hispanus* (Schlüter, 1908).

Dendrocopos maior thanneri le Roi, 1911
Orn Monatsber 19: 81.

Syntypes: ZFMK E.I.5.a⁵.ε., male, Mogan, Gran Canaria, 03.1909, and ZFMK E.I.5.a⁵τ., female, Mogan, Gran Canaria, 03.1909, leg. Thanner.

Paratypes: ZFMK E.I.5.a⁵.α., male, Mogan, Gran Canaria, 03.1909; ZFMK E.I.5.a⁵.γ., male, Gran Canaria, 03.1909; ZFMK E.I.5.a⁵.δ., male, Mogan, Gran Canaria, 03.1909; ZFMK E.I.5.a⁵.ζ., female, Mogan, Gran Canaria, 03.1909; ZFMK E.I.5.a⁵.η., female, Mogan, Gran Canaria, 03.1909; ZFMK E.I.5.a⁵.θ., female, Mogan, Gran Canaria, 03.1909; ZFMK E.I.5.a⁵.κ., male, Mogan, Gran Canaria, 04.1909; ZFMK E.I.5.a⁵.λ., Mogan, Gran Canaria, 04.1909, all leg. Thanner.

Described from six males and six females, ZFMK E.I.5.a⁵.β., exchanged with the AMNH (New York). The syntypes are a breeding pair. – Dickinson (2003): *Dendrocopos major thanneri*.

Picus (Dendrocopos) canariensis Koenig, 1889
J Ornithol 37: 263.

Syntypes: ZFMK E.I.5.a⁴.α. and β., male, female, Pinar of Icod de la Vinos, Tenerife, 23.04. and 17.02.1889, leg. Koenig.

Paratype: ZFMK E.I.5.a⁴.γ., male, same locality as types, 26.01.1889.

In the original description the t. t. is indicated as “Canary Islands”; it is restricted by Rheinwald & van den Elzen (1984) to Tenerife. The type specimens have been shown in the exhibition of the museum and were prepared as

skins not before 1943. One paratype, ZFMK E.I.5.a⁴.δ, was exchanged with the AMNH, New York. – Dickinson (2003): *Dendrocopos major canariensis*.

Dryobates major beicki Stresemann, 1927
Orn Monatsber 35: 134.

Paratype: Coll. Kl. 6417, female, Tschan-to, Kansu, China, 30.I.1927, leg. Beick, No 337.

Type specimen at the MfN, Berlin, No 27.194, t. t. Lanhoukou, Kansu, China. – Dickinson (2003): *Dendrocopos major beicki* (Stresemann, 1927).

Mesopicos goertae koenigi Neumann, 1903
Orn Monatsber 11: 181.

Holotype: ZFMK E.I.9.a¹.α., male ad., S Mutir, “Egyptian Sudan”, 16.03.1903, leg. Koenig, No 375.

Description apparently based on only the type specimen – Dickinson (2003): *Dendropicos goertae koenigi* (Neumann, 1903).

Jynx torquilla tschusii Kleinschmidt, 1907
Falco 3: 103.

Holotype: Coll. Kl. 6560, male, Lanusei, Ogliastro, Sardinia, 20.01.1907.

Obviously description from only this single specimen. – Dickinson (2003): *Jynx torquilla tschusii*.

COTINGIDAE

Zaratornis stresemanni Koepcke, 1954
Publ Mus Hist Nat Javier Prado 16: 1.

Paratype: ZFMK 55.103, female, Zarate near San Bartolomé. 60–70 km to Lima, Peru, 11.10.1953, leg. Koepcke, No Kp 1019 h.

Holotype at the MHN Javier Prado, Lima, No Kp 1019 i. t. t. as above. – Dickinson (2003): *Zaratornis stresemanni*.

FURNARIIDAE

Synallaxis zimmeri Koepcke, 1957
Publ Mus Hist Nat Javier Prado 18: 1.

Paratype: ZFMK 56.1069, female, Colcabamba, tributary river of Rio Cosma, 9°36'S, Peru, 17.08.1956, leg. Koepcke, No Kp 1438 n.

Described from four specimens. Holotype MHN Orn 0584, Kp 1438 p, at the MHN Javier Prado, Lima, t. t. as paratype; 2nd paratype MHN Orn. O585, Kp 1438 o, at the MHN Javier Prado, Lima; 3rd paratype KP 1450 a in the AMNH, New York. – Dickinson (2003): *Synallaxis zimmeri*.

Asthenes pudibunda grisior Koepcke, 1961
Am Mus Novitates 2028: 13.

Paratype: ZFMK 60.171, female, upper Pisco valley, between Huarhac and Manzanallo, Peru, 25.11.1957, leg. Koepcke, No 1482 a.

Holotype at the MHN Javier Prado, Lima, Orn 0624, Kp 1371 s, t. t. Chuquibamba, Peru. – Dickinson (2003): *Asthenes pudibunda grisior*.

Asthenes cactorum Koepcke, 1959
Beitr neotrop Fauna 1: 243.

Paratype: ZFMK 56.1038, male, Pacaychacra, below Chuquibamba, department of Arequipa, Peru, 30.01.1956, leg. Koepcke, No 1374 b. See next taxon.

Described from a series of eight specimens. Holotype: at the MHN Javier Prado, Lima, Kp 1341f. Atico, southern Peru, 08.01.1956. – Dickinson (2003): *Asthenes cactorum cactorum*.

Asthenes cactorum monticola Koepcke, 1965
Beitr neotrop Fauna 4: 162

Paratype: ZFMK 56.1038, see previous taxon.

Described from ten specimens. Holotype at the AMNH, New York, male, George No 1742, t.t. 24 km N Arequipa, Peru. Our paratype has previously been a paratype of the newly described species *cactorum*. – Dickinson (2003): *Asthenes cactorum monticola*.

Asthenes cactorum lachayensis Koepcke, 1965
Beitr neotrop Fauna 4: 164

Paratype: ZFMK 67.189, male, Lomas of Lachay, ca. 90 km N Lima, Peru. 24.10.1959, leg. Koepcke, No 1640 a.

Described from a series of eight specimens. Holotype: MHN Orn 1902, Kp 1677 f at the MHN Javier Prado, Lima, t. t. as above; two further paratypes at the AMNH, New York and four at the LSUMZ. – Dickinson (2003): *Asthenes cactorum lachayensis*.

Cranioleuca antisiensis zaratensis Koepcke, 1961
Publ Mus Nat Hist. Javier Prado 20: 1.

Paratype: ZFMK 55.108, female, Zárate near San Bartolomé, 11°54'S, Peru, 10.X.1953, leg. Koepcke, No KP 1019 d.

Holotype MHN Orn 0641, KP 917 u, at the MHN Javier Prado, Lima, t. t. as above. – Dickinson (2003) presumably: *Cranioleuca antisiensis palamblae* (Chapman, 1923).

LANIIDAE

Lanius excubitor galliae Kleinschmidt, 1917
Falco 13: 24.

Lectotype: Coll. Kl. 2161, male, Thenorgues, Departement des Ardennes, France, 25.02.1916, leg. Döbritz, per Bacmeister.

No type specimen designated in the poor description or in the Catalogue (Kleinschmidt 1935–1943: 56). Lectotype designation by Rheinwald & van den Elzen (1984), based on label in collection. It is uncertain whether the specimens Coll. Kl. 2162–2164 may be considered as paralectotypes. – Dickinson (2003): *Lanius excubitor excubitor* Linnaeus, 1758.

Lanius Excubitor tingitanus Kleinschmidt, 1943
Katalog meiner ornithologischen Sammlung: 57.

Lectotype: Coll. Kl. 2186, male, Tanger, Morocco, 08.05.1885, leg. Olcese;

Paralectotype: Coll. Kl. 2187, ? female, Tanger, 07.11.1898, leg. Floericke.

Only very poor specification in Catalogue given (Kleinschmidt 1935–1943: 57), no types designated; lectotype Bonn zoological Bulletin 59: 29–77

by Rheinwald & van den Elzen (1984), based on handwritten information on label in collection. – Dickinson (2003) presumably: *Lanius excubitor excubitor* Linnaeus, 1758.

Lanius senator flückigeri Kleinschmidt, 1907
Falco 3: 68.

Lectotype: Coll. Kl. 2259, male, Lambèse, Algeria, 1.06.1904, leg. Flükiger.

? Paralectotypes: Coll. Kl. 2257–2261, male, 2 females, o, as type specimen, 06.1904 and 05.1903, leg. Flükiger.

Kleinschmidt erroneously wrote Flükiger with “ck”; no type designated in first description; lectotypes by Rheinwald & van den Elzen (1984), based on label in collection. – Dickinson (2003) presumably: *Lanius senator senator* Linnaeus, 1758.

Lanius senator erlangeri Kleinschmidt, 1919
Falco 14: 16.

Lectotype: Coll. Kl. 2264, male, Tunis, „April“, without year, bought 21.02.1916 from Schlüter. Very poor description, type only designated in the Catalogue (Kleinschmidt 1935–1943: 58). – Dickinson (2003) presumably: *Lanius senator senator* Linnaeus, 1758.

Lanius senator weigoldi Kleinschmidt, 1919
Falco 14: 16.

Lectotype: Coll. Kl. 2243, male, Malaga, Spain, date hardly legible, 01.or 07.03.1904.

Poor description, no material specified, no type specimen designated; lectotype designated from the Catalogue (Kleinschmidt 1935–1943: 58). – Dickinson (2003): *Lanius senator rutilans* Temminck, 1840.

Lanius Senator italiae Kleinschmidt, 1922
Falco 18: 24.

Holotype: Coll. Kl. 2244, male, Monte del Casentino, Tuscany, Italy, 16.07.1922.

Paratype: Coll. Kl. 2245, male, Foggia, Italy, 25.04.1921.

Described from a series of six specimens, four from the private collection of Schlüter. – Dickinson (2003): *Lanius senator senator* Linnaeus, 1758.

Lanius collurio juxtus Clancey, 1951
Bonn zool Beitr 2: 83.

Paratype: male, Martlesham, Woodbridge, E Suffolk, England, 31.05.1941, said to be held at the ZFMK **lost**; holotype in the Clancey collection, RSME, Edinburgh.

Described from a series of eight specimens; British population probably extinct. – Dickinson (2003): *Lanius collurio collurio* Linnaeus, 1758.

Laniarius fuelleborni camerunensis Eisentraut, 1968
Bonn zool Beitr 19: 55.

Holotype: ZFMK 68.12, male, above Dikume-Balue, Rumpi Hills, Cameroon, 25.02.1967, leg. Eisentraut No 1068.

Paratypes: ZFMK 61.1427, male, Cameroon Mountains, 09.02.1958; ZFMK 61.1428, female, Cameroon Mountains, 20.11.1957; ZFMK 61.1429, male, Cameroon Mountains, 09.11.1957; ZFMK 68.952, male, Mt. Kupe, 01.12.1966; ZFMK 68.953, male, Lake Manenguba, 30.12.1966; ZFMK 68.954, male, Dikume, Rumpi Hills, 22.02.1967; ZFMK 68.955, male, Dikume, Rumpi Hills, 23.02.1967; ZFMK 68.956, male, Dikume, Rumpi Hills, 25.02.1967; ZFMK 68.957, male, Dikume, Rumpi Hills, 02.03.1967; ZFMK 68.958, female, Dikume, Rumpi Hills, 17.02.1967, all leg. Eisentraut.

Described from a larger series of twenty-one males and ten females, rest of series in SMNS, Stuttgart? – Dickinson (2003): *Laniarius poensis camerunensis*.

ORIOLIDAE

Oriolus chlorocephalus speculifer Clancey, 1969
Durban Museum Novit 8: 249 (April 1969)

Bull Brit Orn Cl 89: 108 (August 1969)

Holotype: ZFMK 68.2695, female, Gorongoza Mountain, Mozambique, 25.10.1968, leg. Baddeley.

Announced as newly described subspecies from six specimens in Durban Museum Novitates and described from seven specimens in Bull Brit Orn Cl. Type specimen designated in August 1969 in the Bull Brit Orn Cl. Paratypes DMD 24.675–78 and DMD 24.680–81, 4 males, 2 females, Gorongoza Mountain, 21.–24.10.1968, leg. Baddeley, at the DMD (Durban). The publication in the Durban Mus Novit was not meant to be an original descrip-

tion, rather the announcement of a new form, which was released only “inadvertently” before the publication in the Bull. Brit. Orn. Club. – Dickinson (2003): *Oriolus chlorocephalus speculifer*.

CORVIDAE

Pica galliae Kleinschmidt, 1917
Falco 13: 24.

Lectotype: Coll. Kl. 5681, male pull., Briquenay, Département des Ardennes, France, 21.05.1916, leg. Bacmeister.

Paralectotypes: ? Coll. Kl. 5682–5689, 2 males, 4 females, Département Ardennes and Meuse, 22.09.1916 until 16.02.1917, leg. Bacmeister.

Not indicated as paratypes, listed in one series along with No 5681; the latter designated as type specimen in the Catalogue (Kleinschmidt 1935–1943: 119). No types defined in the sparse description. – Dickinson (2003): *Pica pica pica* (Linnaeus, 1758).

Corvus corax kretae Jordans & Steinbacher, 1943
Senckenbergiana 26: 73.

Holotype: ZFMK 46.21, male, Kanea, Crete, 26.02.1925, leg. Schiebel.

Paratypes: ZFMK 57.676–57.681, female, 5 males, all Kanea, Crete, 26.02.1925, leg. Schiebel.

Described from seven specimens. – Dickinson (2003) presumably: *Corvus corax laurencei* Hume, 1873.

Corvus corax jordansi Niethammer, 1953
Bonn zool Beitr 4: 74.

Holotype: ZFMK F.VII.3.g⁷.γ., (No 10.325), male ad., Oliva, Fuerteventura, Canary Islands, 03.1912, leg. Thanner.

Paratypes: ZFMK F.VII.3.g⁷.α., β and ZFMK F.VII.3.g⁷.δ–μ., 5 males, 6 females, locality as type specimen.

Described from twelve specimens. – Dickinson (2003): *Corvus corax canariensis* Hartert & Kleinschmidt, 1901.

Corvus sardus Kleinschmidt, 1903
Orn Monatsber 11: 92.

Lectotype: Coll. Kl. 5319, male, Boulvai, Ogliastra, Sardinia, 09.03.1902, leg. Wolterstorff.

Paralectotype: Coll. Kl. 5318, male, Ulassai, Ogliastra, Sardinia, 18.01.1902, leg. Wolterstorff; uncertain paralectotypes: Coll. Kl. 5320–5325.

No types defined in the description, No 5319 only in 1943 designated as type in Catalogue (Kleinschmidt 1935–1943: 112). – Dickinson (2003) presumably: *Corvus corax corax* Linnaeus, 1758.

Corvus corax hispanus Hartert & Kleinschmidt, 1901
Novit Zool 8: 45.

?Paratype: Coll. Kl. 5330, male ad., Murcia, Spain, 09.1855 or 1856 (unreadable), leg. A. E. Brehm.

Holotype supposedly at the BM, Tring (Hartert & Kleinschmidt, 1901), t.t. Aguilhas, near Murcia. – Dickinson (2003): *Corvus corax hispanus*.

Corvus bacmeisteri Kleinschmidt, 1919
Falco 14: 8.

Lectotype: Coll. Kl. 5466, female juv., bill, claw and left wing, Schwittersdorf, Saxony, 31.03.1917, leg. Kleinschmidt

Designated as type and defined in the Catalogue (Kleinschmidt 1935–1943: 116) as variation (aberratio) of *Corvus corone cornix* Linnaeus, 1758.

Corvus sardonius Kleinschmidt, 1903
Orn. Monatsber. 11: 92.

Lectotype: Coll. Kl. 5481, ? female, Ogliastra, Sardinia, 09.01.1900, leg. Wolterstorff.

Poor description, type designated only in Catalogue (Kleinschmidt 1935–1943: 116). If other specimens from catalogue are paralectotypes is unclear. – Dickinson (2003): *Corvus corone sharpii* Oates, 1889.

Corvus ultracollaris Kleinschmidt, 1919
Falco 14: 16.

Lectotype: Coll. Kl. 5663, male, Naryn, Tien Shan, 24.03.1910, per Schlüter.

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Poor description; in Catalogue (Kleinschmidt 1935–1943: 119) type specimen designated, no other skins listed under taxon name. – Dickinson (2003): *Corvus monedula soemmerringii* J. G. Fischer, 1811.

Nucifraga caryocatactes wolfi Jordans, 1940
Mitt Königl Naturwiss Inst Sofia 13: 63.

Holotype: ZFMK 38.605, male, Karlik, Rhodope Mountains, Bulgaria, 25.08.1935, leg. Heinrich, Museum Warsaw, Inv. No 909.

Paratypes: ZFMK 38.606, female, Karlik, Rhodope Mountains, Bulgaria, 26.08.1935 leg. Heinrich; ZFMK 38.607, male, Pirin Mountains, Bulgaria, 06.06.1938; ZFMK 68.608, male, Pirin Mountains, Bulgaria, 07.06.1938; ZFMK 68.609, male juv., Pirin Mountains, Bulgaria, 07.06.1938; ZFMK 68.610, female juv., Pirin Mountains, Bulgaria, 07.06.1938; ZFMK 68.611, male, Pirin Mountains, Bulgaria, 09.06.1938; ZFMK 68.612, female, Pirin Mountains, Bulgaria, 10.06.1938; – ZFMK 38.613, male, Pirin Mountains, 10.06.1938, leg. A. von Jordans. – Dickinson (2003): *Nucifraga caryocatactes caryocatactes* (Linnaeus, 1758).

Nucifraga hemispila interdictus Kleinschmidt & Weigold, 1922
Falco 18: 2.

Paralectotype: Coll. Kl. 5862, male, Tschili, protective forest, E of Peking, 02.09.1916.

Lectotype (labelled in handwriting): C23062 P, 02.09.1916, Hung-mönntsze, forest reserve east of Beijing, NO Tschili, 1400m, leg. Schott.

Lectotype in the SNS, Dresden, designated by Eck & Quaisser (2004); paralectotype designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Nucifraga caryocatactes interdicta*.

Garrulus glandarius hansguentheri Keve, 1967
Bull Brit Orn Cl 87: 40.

Paratype: ZFMK 51.10, o, Cekmece, Turkey, 01.03.1947, leg. Kosswig;

Holotype at the BMNH, Tring, No 1886, female, Tash-Cupri, near Constantinople, 12.01.1922.

Other specimens consulted in ZFMK and BMNH, Tring. – Dickinson (2003): *Garrulus glandarius anatoliae* Seebohm, 1883.

Garrulus hilgerti Kleinschmidt, 1940
Falco 36: 8.

No type defined in the description, the Kleinschmidt Catalogue (1935–1943: 121) or in the collection. Coll. Kl. 5868, female, Neustadt a.d. Wied, 22.05.1896, a breeding bird with a clutch of three eggs Coll. Kl. 5868a, are the only specimens registered under that name. – Dickinson (2003): *Garrulus glandarius glandarius* (Linnaeus, 1758).

Garrulus ichnusae Kleinschmidt, 1903
Orn Monatsber 11: 92.

Lectotype: Coll. Kl. 5893, male, Ogliastro, Sardinia, 30. 12. 1902, leg Meloni, per Wolterstorff.

Paralectotype: ZFMK F.VII.8.a¹.γ., male ad., Ogliastro, Sardinia, 03.02.1903, leg. A. von Jordans No 2811.

No type specimen was defined in the original description; Lectotype designated from label in the collection (Rheinwald & van den Elzen 1984) as Catalogue (Kleinschmidt 1935–1943: 122) does not specify which specimen from the series is the type. Paralectotype marked as such in the inventory book of the ZFMK collection. – Dickinson (2003): *Garrulus glandarius ichnusae*.

Garrulus albipectus Kleinschmidt, 1920
Falco 16: 28.

Lectotype: Coll. Kl. 5898, male ?, Florence, 12. 1914, per Schlüter.

Paralectotype: Coll. Kl. 5899, o, Legi near Florence, no date, per Schlüter.

The third specimen mentioned in the description doesn't exist anymore. No type specimen designated in description, or in Catalogue (Kleinschmidt 1935–1943: 122); identified only from label (Rheinwald & van den Elzen 1984). – Dickinson (2003): *Garrulus glandarius albipectus*.

Garrulus lambessae Kleinschmidt, 1912
Falco 8: 51.

Lectotype: Coll. Kl. 5921, male, Lambèse, Algeria, 02.06.1904, leg. Flükiger.

Paralectotypes: Coll. Kl. 5922, male, Lambèse, Cheliah, Algeria, 01.06.1905; Coll. Kl. 5923, male pull., Lambèse, Cheliah, Algeria, 01.07.1903, leg. Flükiger.

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No type specimen defined in the original description, only in Catalogue (Kleinschmidt 1935–1943: 123). – Dickinson (2003) presumably: *Garrulus glandarius cervicalis* Bonaparte, 1853.

PARIDAE

Parus cristatus hispanus Jordans, 1933
Anz Orn Ges Bayern 2: 257.

Holotype: ZFMK G.X.1.g².γ., female, Mosqueruela near Teruel, Spain, 02.10.1931, leg. H. Grün.

Paratypes: ZFMK G.X.1.g².α., male, Mosqueruela near Teruel, 19.12.1930; ZFMK G.X.1.g².β., male, Mosqueruela near Teruel, 30.12.1930; ZFMK G.X.1.g².δ., female, Mosqueruela near Teruel, 05.01.1931; ZFMK G.X.1.g².ζ., male, Mosqueruela near Teruel, 07.10.1931; ZFMK G.X.1.g².μ., male, Mosqueruela near Teruel, 06.10.1931; ZFMK G.X.1.g².κ., female, Mosqueruela near Teruel, 07.10.1931; ZFMK G.X.1.g².λ., male, Mosqueruela near Teruel, 02.01.1931; ZFMK G.X.1.g².μ., male, Mosqueruela near Teruel, 02.01.1931; ZFMK G.X.1.g².ν., o, Mosqueruela near Teruel, 02.01.1931, all leg. Grün.

Described from a series of thirteen specimens; three exchanged with AMNH, New York and an illegible institution. – Dickinson (2003): *Parus cristatus weigoldi* Tratz, 1914.

Parus cristatus bureschi Jordans, 1940
Mitt Königl Naturwiss Inst Sofia 13: 90.

Holotype: ZFMK 38.718, female ad., Pirin Mountains (above Bansko), Bulgaria, 05.06.1938, leg. Wolf.

Paratypes: ZFMK 38.719, female, Pirin Mountains, 04.06.1938; ZFMK 38.720, o, Pirin Mountains, 05.06.1938; ZFMK 38.721–38.724, 4 o, Pirin Mountains, 06.06.1938, leg. Wolf.

Described from twelve specimens; whereabouts of other paratypes unknown. – Dickinson (2003): *Parus cristatus bureschi*.

Parus Lophophanes nominandus Kleinschmidt, 1943
Katalog meiner ornithologischen Sammlung: 106.

Nomen nudum there, as it lacks description.

Parus rhenanus Kleinschmidt, 1900
Orn Monatsber 8: 168.

Holotype: Coll. Kl. 4536, male, banks of the River Rhine between Mainz and Worms, 04.10.1894, leg. Lorentz.

Paralectotypes: Supposedly Coll. Kl. 4537–4569, Kornsand, Ingelheim, Renthendorf, Guntershausen, Knoblochsau, between 1894 and 1899, leg. Kleinschmidt.

Paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Parus montanus rhenanus*.

Parus salicarius submontanus Kleinschmidt & Tschusi, 1913
Falco 9: 33.

Paralectotype: Coll. Kl. 4597, male, Gmunden, Upper Austria, 6.I.1913, leg. Tschusi.

Holotypes at the NHMW, Vienna, breeding pair 29.03.1913 from Gmunden, ex. Coll. Tschusi.

Paralectotype designated on label, whole series from Coll. Kl. 4597–4603 referred to as “cotypes”. In original description only two specimens specified. – Dickinson (2003): *Parus montanus montanus* Conrad von Baldenstein, 1827.

Parus salicarius subrhenanus Kleinschmidt & Jordans, 1916
Falco 12: 17.

Holotype: Coll. Kl. 4512, female juv., foothills of Bonn, 06.12.1913, leg. A. von Jordans.

Paratype: Coll. Kl. 4513, male juv., River Sieg near Bonn, 03.06.1911, leg. A. von Jordans No 116. – Dickinson (2003): *Parus montanus rhenanus* Kleinschmidt, 1900.

Parus borealis tischleri Kleinschmidt, 1917
Falco 13: 23.

Lectotype: Coll. Kl. 4587, male, near Bartenstein, East Prussia, 25.12.1916, leg. Tischler.

Paralectotypes: Coll. Kl. 4588–4591, male, 2 females, o, Bartenstein, 11.1909, 1910, 12.1916, leg. Tischler.

Very poor description, “between *borealis* and *salicarius*”; type specimens designated in the Catalogue (Kleinschmidt 1935–1943: 102). – Dickinson (2003): *Parus montanus salicarius* C. L. Brehm, 1831.

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Parus Salicarius natorpi Kleinschmidt, 1917
Falco 13: 23.

Lectotype: Coll. Kl. 4575, male, Emanuelsegen, Silesia, 17.10.1909, leg. Natorp.

Paralectotypes: Supposedly Coll. Kl. 4576–4582, 3 males, 2 females, 2 o, Emanuelsegen, Myslowitz, Cieskowice, Bitschin, Roschkowitz, Silesia, collected in 02. 04.1909, 10.1909, leg. Natorp.

Very poor description with no types designated; lectotype designated only in Catalogue (Kleinschmidt 1935–1943: 101), specimen labelled as type. – Dickinson (2003) presumably: *Parus montanus borealis* Selys-Longchamps, 1843.

Parus Salicarius supermontanus Kleinschmidt, 1921
Berajah, Parus Salicarius: 17.

Lectotype: Coll. Kl. 4634, male, Trient, Cembra valley, Italy, 26.11.1897, leg. Marchi.

Paralectotypes: Presumably Coll. Kl. 4635–4640, 3 females, 3 o, Cembra valley, Trient, 11.1897, leg. Marchi.

Very poor description with no types designated; lectotype designated only in Catalogue (Kleinschmidt 1935–1943: 102), specimen labelled as type. – Dickinson (2003) presumably: *Parus montanus salicarius* C. L. Brehm, 1831.

Parus Salicarius transsylvanicus Kleinschmidt, 1921
Berajah, Parus Salicarius: 17.

Lectotype: Coll. Kl. 4644, male, surroundings of Kronstadt, Transylvania, Romania, 28.12.1896, leg. Hausmann, per Schlüter.

Paralectotypes: ZFMK G.X.1.m¹⁰.α., (20.186), male, data like type specimen, and Coll. Kl. 4645–4649, 4 males, female, 08.1896, Kronstadt, leg. Hausmann, per Schlüter.

Very sparse description with no types designated; lectotype designated only in Catalogue (Kleinschmidt 1935–1943: 102), specimen labelled as type. – Dickinson (2003): *Parus montanus montanus* Conrad von Baldenstein, 1827.

Parus Salicarius schiebeli Kleinschmidt, 1937
Berajah, Parus Salicarius: 36.

Lectotype: Coll. Kl. 4623, male, Zirknitz, Krain, Slovenia, 03.01.1926, leg. Schiebel.

Paralectotypes: presumably Coll. Kl. 4624–4633, 5 males, 4 females, o, all Zirknitz and surroundings, 09.1902, 1903, 11.1926, 12.1923 and 01.1924 and 1926, leg. Schiebel. Further 37 specimens from the Coll. Schiebel, possibly including ZFMK 38.139–38.159, 1926–1927, Zirknitz, leg. Schiebel.

No types designated in the original description; lectotype designated only in Catalogue (Kleinschmidt 1935–1943: 102), specimen labelled as type (see also Schifter & van den Elzen 1986). – Dickinson (2003): *Parus montanus montanus* Conrad von Baldenstein, 1827.

***Parus Salicarius styriacus* Kleinschmidt, 1937**

Berajah, *Parus Salicarius*: 36.

Lectotype: Coll. Kl. 4605, male, St. Georgen ob Judenburg, Styria, Austria, 23.10.1926, leg. Schiebel.

Paralectotypes: Coll. Kl. 4606–4622, 5 males, 9 females, 3 o, Bruck a. d. Mur, Turracher Höhe, Tamsweg, St. Wolfgang i. Bachergebirge, Austria, leg. Schiebel, and 49 specimens of the Coll. Schiebel, probably all at the ZFMK. 10.1919, 0.9–12.1921, 04.1922, 10., 11., 1926. – Dickinson (2003): *Parus montanus montanus* Conrad von Baldenstein, 1827.

***Parus Salicarius weigoldi* Kleinschmidt, 1921**

Berajah, *Parus Salicarius*: 19.

Paralectotypes: Coll. Kl. 4697–4699, 2 males, female, Atentsze, Mekong tributary, Janeti; Sungpan, E Tibet, 25. and 29.09.1915 and 29.05.1914, leg. Weigold.

Described from a series, no types designated in first description or in Catalogue (Kleinschmidt 1935–1943: 103). Lectotype designated in Eck & Quaiser (2004), lectotype at the SNS, Dresden C 23803, t.t. Mauntschi, Szechuan. – Dickinson (2003) probably: *Parus montanus baicalensis* (Swinhoe, 1871).

***Parus weigoldicus* Kleinschmidt, 1921**

Falco 17: 3, Abb. (Tafel) 2 in Falco 34: 62/63.

Paralectotypes: Coll. Kl. 4697–4699, s. previous taxon.

Nomen novum for *Parus Salicarius weigoldi* Kleinschmidt, 1921, preoccupied by *Parus weigoldi* Tratz, 1914. – Dickinson (2003): *Parus montanus baicalensis* (Swinhoe, 1871).

***Parus Salicarius stötzneri* Kleinschmidt, 1921**

Berajah, *Parus Salicarius*: 20.

Paralectotype: Coll. Kl. 4696, male, 30 km n. Balihandien, NE Tschili, China, 30.04.1916, leg. Weigold, per Stötzner.

Described from a series, no type designated. Lectotype designated in Eck & Quaiser (2004), Lectotype at the SNS, Dresden C 23845, t.t. as above. Two more paralectotypes in MfN, Berlin and AMNH, New York. – Dickinson (2003) probably: *Parus montanus baicalensis* (Swinhoe, 1871).

***Parus communis jeholicus* Kleinschmidt & Weigold, 1922**

Falco 18: 2.

Paralectotypes: Coll. Kl. 4484–4485, 2 males, 30 km n. Balihandien, NE Tschili, 29.04. and 03.05.1916, leg. Weigold, per Stötzner.

Described from a series, but no information on specimens given in original description. In Catalogue (Kleinschmidt 1935–1943: 100) the two specimens mentioned above are designated as “cotypes”. Eck & Quaiser (2004) describe a series of eight specimens at the SNS, Dresden as “syntypes”; one specimen lost in 1945, t. t. north of Jehol. – Dickinson (2003): *Parus palustris jeholicus*.

***Parus sardus* Kleinschmidt, 1903**

Orn Monatsber 11: 186.

Holotype: Coll. Kl. 4766, male, Arzana, Ogliastra, Sardinia, 13.10.1903, leg. Wolterstorff.

Three paratypes listed in the description are apparently lost. – Dickinson (2003): *Parus ater sardus*.

***Parus ater pinicolus* Clancey, 1943**

Bull Brit Orn Cl 63: 66.

Paratypes: ZFMK 50.112, male, Sutherlandshire, N Scotland, 31.08.1938; ZFMK 50.113, female, Sutherlandshire, N Scotland, 09.09.1938; ZFMK 50.114, male, Sutherlandshire, N Scotland, 05.09.1938; ZFMK 50.115, female, Sutherlandshire, N Scotland, 31.08.1938, all leg. Clancey.

Holotype at the RSME, Edinburgh, t. t. Rothiemurchus Forest, Inverness-Shire. – Dickinson (2003): *Parus ater britannicus* Sharpe & Dresser, 1871.

***Parus ater martensi* Eck, 1998**

Zool Abhandl Staatl Mus Tierk Dresden 50 (8): 130.

Holotype: ZFMK 95.24, male, Chadziou, Khola-Tal, Thakkhola, Mustang district, Nepal, 2600m, 30.10.1969, leg. J. Martens.

Paratypes: ZFMK 74.459–74.463, 5 males, Thakkola, Thaksang above Tukche, 3150m, 08.07.1973, 10.03.1974; ZFMK 74.467, o juv, Thakkola, Tkaksang above Tukche, 02.07.1973; ZFMK 74.471–74.472, 2 females, Thakkola, Thaksang above Tukche, 3150m, 10 and 11.03.1974; ZFMK 74.464–74.465, 2 males, Thakkola, Purano Marpha (Alt Marpha), 3200 m, 15. and 16.03.1974; ZFMK 74.468–74.469, 2 females, Thakkola, Purano Marpha (Alt Marpha), 3200 m, 16. and 19.03.1974; ZFMK 74.470, female juv., Thakkhola, at Nabrikot-Khola, 08.07.1973; ZFMK 2006.41, female, Thakkola, Tukche, 3100m, 23.11.1969; ZFMK 2006.43, male, Parbat District between Deorali and Chitre, 2850m, 02.05.1995; ZFMK 2006.44, male, Mustang District, Purano Marpha, 3200 m, 10.05.1995, all leg. Martens.

Described from a series of 20 specimens; for the paratypes no collection numbers were provided in the original description, but date and finding locality; other paratypes are in the bird collection of the BMNH, Tring. The subspecies is already figured in Martens (1993: 43, fig. d) and Martens & Eck (1995: plate 3, fig. d). – Dickinson (2003): *Parus ater martensi*.

***Parus caeruleus touraudericus* Bacmeister & Kleinschmidt, 1920**

J Ornithol 68: 101.

Lectotype: Coll. Kl. 4206, male, La Tourauderie, Dept. Ardennes, France, 18.02.1916, leg. Bacmeister.

Paralectotypes: Coll. Kl. 4205, 4207–4210, 5 o, La Tourauderie and Vitarville, Meuse, 02., 03., 10.1916, leg. Bacmeister.

No types defined in the original description based on twelve specimens; lectotype designated from the Catalogue (Kleinschmidt 1935–1943: 98) and handwriting on label. Whereabouts of other six specimens unknown. – Dickinson (2003): *Parus caeruleus caeruleus* Prazák, 1894.

***Parus coeruleus balearicus* Jordans, 1913**

Falco 9: 43.

Holotype: ZFMK G.X.1.b⁶.ζ., female, Valldemosa, Majorca, Baleares, 11.03.1913, leg. A. von Jordans No 622.

Bonn zoological Bulletin 59: 29–77

Paratypes: ZFMK G.X.1.b⁶.α. female, Palma, Majorca, 10.03.1913; ZFMK G.X.1.b⁶.β., female, Valldemosa, Majorca, 11.03.1913; ZFMK G.X.1.b⁶.γ., male, Lluch, Majorca, 22.03.1913; ZFMK G.X.1.b⁶.ε., male, Palma-Valldemosa, Majorca, 10.03.1913; ZFMK G.X.1.b⁶.η., male, Lluch, Majorca, 24.03.1913; ZFMK G.X.1.b⁶.θ., male, Esporlas, Majorca, 20.05.1913; ZFMK G.X.1.b⁶.ι., female, Esporlas, Majorca, 20.05.1913, all leg. A. von Jordans.

Obviously described from a series of nine specimens listed in the inventory book of the ZFMK, but only ZFMK G.X.1.b⁶.ε., male, defined as “cotype”. One paratype exchanged with the MfN, Berlin. – Dickinson (2003): *Parus caeruleus balearicus*.

***Parus corsus* Kleinschmidt, 1903**

Orn Monatsber 11: 6.

Holotype: Coll. Kl. 4129, male, Ajaccio, Corsica, 18.01.1902.

Probable paralectotypes: Coll. Kl. 4130–4137, 4 males, 4 females, Ajaccio, 18.01.–15.02.1902.

In original description no details on number of skins studied are given, no paratypes are defined. In his Catalogue Kleinschmidt (1935–1943: 97) indicates nine specimens from Corsica as “including type”, and lists additional sixteen specimens from Sardinia. – Dickinson (2003): *Parus major corsus*.

***Parus wladivostokensis* Kleinschmidt, 1913**

Falco 9: 33.

Holotype: Coll. Kl. 4162, male, Wladiwostok, NE Asia, 07.12.1900.

Paratype: Coll. Kl. 4163, male, Wladiwostok, 18.09. without year.

Only two specimens in Collection Kleinschmidt I. – Dickinson (2003) presumably: *Parus major minor* Temminck & Schlegel, 1848.

***Parus tschiliensis* Kleinschmidt, 1922**

Falco 18: 3.

Paralectotype: Coll. Kl. 4164, male, 30 km n. Balihandien, NE Jehol, Tschili, leg. Weigold, per Stötzner.

No type specimen designated in original description. Lectotype and other paralectotypes at the SNS, Dresden, lectotype specimen lost in 1945 (see Eck & Quaiser 2004). – Dickinson (2003) presumably: *Parus major minor* Temminck & Schlegel, 1848.

Parus major gotoensis Kleinschmidt, 1922
Falco 18: 2.

Lectotype: Coll. Kl. 4176, male, Goto Islands, Japan, 18.04.1906.

Paralectotype: Coll. Kl. 4177, male, Goto Islands, 01.04.1906.

Only two specimens existed for the description, their identity being uncertain as data were neither defined in the original description nor a type designated in the Catalogue (Kleinschmidt 1935–1943: 97). Lectotype and paralectotype designated by Rheinwald & van den Elzen (1984); identification of type specimen taken from handwriting on label, (Cotype = paralectotype; see also Dickinson et al. 2006: 88). – Dickinson (2003): *Parus major kagoshimae* Taka-Tsukasa, 1919.

Parus major amamiensis Kleinschmidt, 1922
Falco 18: 2.

Lectotype: Coll. Kl. 4178, female, Amami Oshima, Japan, 25.02.1906.

Described on the basis of one single specimen. Information on type status derived from label (Rheinwald & van den Elzen 1984). – Dickinson (2003): *Parus major amamiensis*.

Parus major subtibetanus Kleinschmidt & Weigold, 1922
Abh Ber Mus Tierk Dresden 15: 11.

Paratype: Coll. Kl. 4159, male, a three days' journey from Batang, Janeti, E Tibet, 29.09.1915, leg. Weigold.

Described from a larger series. Holotype and nine paratypes listed in Eck & Quaiser (2004) for SNS, Dresden. Holotype and one paratype specimen lost in 1945. Whereabouts of other specimens uncertain. – Dickinson (2003) presumably: *Parus major commixtus* Swinhoe, 1868.

Parus maior mallorcae Jordans, 1913
Falco 9: 43.

Lectotype: ZFMK G.X.1.a³.α., male, Palma, Valldemosa, Majorca, Balears, 10.03.1913, leg. A. von Jordans No 707.

Paralectotypes: ZFMK G.X.1.a³.β., o, Lluch, Majorca, 22.03.1913; ZFMK G.X.1.a³.γ., male, Lluch, Majorca, 18.03.1913; ZFMK G.X.1.a³.δ., o, Lluch, Majorca, 22.03.1913; ZFMK G.X.1.a³.ε., female, Esporlas, 20.05.1913; ZFMK G.X.1.a³.ζ., male, Fornalutx, 17.03.1913; ZFMK G.X.1.a³.η., male, Valldemosa, 19.05.1913; ZFMK G.X.1.a³.θ., female, Esporlas, 12.03.1913; ZFMK G.X.1.a³.ι., male, Esporlas, 20.05.1913; ZFMK G.X.1.a³.κ., female, Esporlas, 20.05.1913; ZFMK G.X.1.a³.λ., female, Santany, 09.05.1913; ZFMK G.X.1.a³.μ., male, Palma, Valldemosa, 10.03.1913; ZFMK G.X.1.a³.ν., male, Fornalutx, Majorca, 17.03.1913, all leg. A. von Jordans.

Probably described from a series of thirteen specimens; no type specimen designated in original description (“type is in my collection”). Lectotypes designated by Rheinwald & van den Elzen (1984) from handwritten label and collection inventory. – Dickinson (2003): *Parus major mallorcae*.

Parus major ecki Jordans, 1970
Zool Abh Mus Tierk Dresden 31: 213.

Holotype: ZFMK G.X.1.a².ρ., male, Mt. Tortoli, Sardinia, 28.04.1926.

Paratypes: Coll. Kl. 4153, female, Lanusei, Ogliastro, 14.11.1902, and ZFMK G.X.1.a².β., female, Talana, Ogliastro, Sardinia, 31.01.1903; ZFMK G.X.1.a².γ., male, Bari, Ogliastro, Sardinia, 23.03.1903; ZFMK G.X.1.a².δ., male, Loceri, Ogliastro, 06.02.1904; ZFMK G.X.1.a².ε., female, Loceri, Ogliastro, 06.02.1904; ZFMK G.X.1.a².ζ., male, Arzana, Ogliastro, 24.02.1904; ZFMK G.X.1.a².η., male, Ilbono, Ogliastro, 22.03.1904; ZFMK G.X.1.a².θ., female, Baunusei, Ogliastro, 03.03.1906; ZFMK G.X.1.a².ι., female, Lanusei, Ogliastro, 06.05.1906, all per O. Kleinschmidt; ZFMK G.X.1.a².λ., male, Ogliastro, Sardinien, 13.002.1904; ZFMK G.X.1.a².μ., male, Ogliastro, Sardinien, 24.04.1906; ZFMK G.X.1.a².ν., male, Lanusei, 15.04.1924; ZFMK G.X.1.a².ξ., male, Lanusei, 18.08.1924; ZFMK G.X.1.a².ο., male, Lanusei, 20.02.1925; male, Lanusei, ZFMK G.X.1.a².π., Mt. Tortoli, Sardinia, 25.04.1926; all leg. A. v. Jordans.

Described from a series of twenty-five males and nine females; whereabouts of remaining paratypes unknown. – Dickinson (2003): *Parus major ecki*.

Parus maior caspius Zarudny & Loudon, 1905
Orn Monatsber 13: 109.

Probable paralectotype ZFMK G.X.1.a⁵.α., male, Kuljam-Chadschi-Ali, W Iran, 13.10. (= 26.10. Gregorian Calendar) 1903, ex. Coll. Zarudny No 1645, Coll. Jordans No 1454.

No type defined in the original description; the individual is labelled as “cotype” by von Jordans and published as “cotype” (Jordans 1923: 23). – Dickinson (2003): *Parus major karelini* Zarudny, 1911. See next taxon.

Parus major karelini Zarudny, 1911
J Ornithol 59: 236.

Nomen novum for *Parus maior caspius* Zarudny & Loudon, 1905, because of *Parus caspicus* S.G. Gmelin, 1774 (which is *Motacilla cinerea*). Presumed paralectotype is ZFMK G.X.1.a⁵.α., see previous taxon.

Parus maior zagrossiensis Zarudny & Loudon, 1905
Orn Monatsber 13: 108.

Paralectotype ZFMK G.X.1.a⁵.β., male, Samdalkal, W Iran, 02.01.1904 (=20.12.1903 Gregorian Calendar), Coll. Zarudny 1476a, Coll. A. von Jordans No 1455.

No holotype defined in the original description, the specimen is labelled “cotype” by A. von Jordans, but not mentioned as in his collection (Jordans 1923); t. t. Zagros Mountains, (name is misprint of *P. m. zagrossiensis*). – Dickinson (2003): *Parus major blanfordi* Prazák, 1894.

Parus major niethammeri Jordans, 1970
Zool Abh Mus Tierk Dresden 31: 218.

Lectotypes: ZFMK 57.858 and 57.859, 2 males, Canea, Crete, 12.02.1925, leg. Schiebel.

Paratypes: ZFMK 57.857, female, Canea, Crete, 17.02.1925; ZFMK 57.860, male, Canea, Crete, 14.02.1925; ZFMK 57.863, male, Canea, Crete, 26.03.1925; ZFMK 57.864, male, Canea, Crete, 20.03.1925; ZFMK 57. 865, male, Canea, Crete, 03.03.1925; ZFMK 57.866, male, Canea, Crete, 21.02.1925; ZFMK 57.867, female, Canea, Crete, 24.03.1925; ZFMK 57.868, female, Canea, Crete, 24.04.1925; ZFMK 57.869, female, Souda Bay, 14.02.1925; ZFMK 57. 870, male, Souda Bay, 24.03.1925; ZFMK 57. 871, female, Souda Bay, 15.03.1915; ZFMK 57. 872, female, Souda Bay, 15.03.1925; ZFMK 57. 873,

male, Souda Bay, 10.05.1925; ZFMK 57. 874, female, Souda Bay, 14.02.1925; ZFMK 57.875, male, Souda Bay, 26.04.1925; ZFMK 57.876, female, Souda Bay, 26.04.1925 and ZFMK 57.877, male, Wrysses, Crete, 03.04.1925, all leg. Schiebel.

One single specimen defined as type in the original description. However, in the collection of the ZFMK two males collected at the same day and locality bear the handwritten notice “type” by von Jordans. Thus, both specimens are listed as lectotypes. Originally described from eighteen males and thirteen females; ZFMK 57. 861–862 exchanged with AMNH, New York, whereabouts of other specimens unknown. – Dickinson (2003): *Parus major niethammeri*.

HIRUNDINIDAE

Cotyle ruspestris spatzi¹⁾ Geyr, 1916
Orn Monatsber 24: 59.

Holotype: ZFMK B.III.4.b¹.γ., male, Gara Djenrun, Algeria, 11.03.1914, leg. Geyr.

Paratypes: ZFMK B.III.4.b¹.α., male, Oued Aghelil, 18.03.1914; ZFMK B.III.4.b¹.β., Oued Amra, 05.04.1914; ZFMK B.III.4.b¹.δ., female, Oued Amra, 05.04.1914; ZFMK B.III.4.b¹.ε., male, Amgid, 16.02.1914; ZFMK B.III.4.b¹.ζ., male, Gara Djenrun, 11.03.1914; ZFMK B.III.4.b¹.η., male, Amgid, 16.02.1914; ZFMK B.III.4.b¹.θ., male, Gara Djenrun, 11.03.1914, all leg. Geyr.

Described from eight specimens, series complete. – Dickinson (2003): *Ptyonoprogne obsoleta spatzi*.

¹⁾ misprint in original description, correctly: *Cotyle ruspestris spatzi* Geyr, 1916.

Hirundo Urbica vogti Kleinschmidt, 1943
Katalog meiner ornithologischen Sammlung: 61.

Lectotype: Coll. Kl. 1995, male, Niedernhausen/ Odenwald, 02.06.1916, leg. Vogt.

Paralectotypes: Coll. Kl. 1996–2001, 2 males, 2 females, 2 juv., Niedernhausen/ Odenwald, 25.05.–19.07.1916, leg. Vogt.

Very brief description, no types designated. Lectotype and paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Delichon urbicum urbicum* (Linnaeus, 1758).

AEGITHALIDAE

Aegithalos caudatus expugnatus Bacmeister & Kleinschmidt, 1916
Falco 12: 18.

Lectotype: Coll. Kl. 4870, male, Dept. Ardennes, E France, 09.02.1916, leg. Bacmeister.

Paralectotypes: Supposedly Coll. Kl. 4871–4882, 7 males, 3 females, 2 o, La Tourauderie, Thugny, Dept. Ardennes, 30.01.–08.04.1916, leg. Bacmeister.

No types defined in the original description; series indicated as “types” in Catalogue (Kleinschmidt 1935–1943: 106), type specimen labelled as type. – Dickinson (2003): *Aegithalos caudatus europaeus* (Hermann, 1804).

Acredula tephronota passekii Zarudny, 1904
Orn Monatsber 12: 164.

Paralectotype ZFMK G.X.2.a¹⁰.α., male, Schalil, W Iran, 04.01.1904 (= 22.12.1903 according to the Gregorian Calendar), leg. Zarudny No 1480, ex Coll. Jordans No 1586. No type designated in original description; obviously no large series existed. The specimen is published by Jordans (1923: 25) as “I have a cotype from Schalil in Iran in my collection” and labelled as “cotype” by A. von Jordans in the ZFMK bird skin collection. – Dickinson (2003): *Aegithalos caudatus passekii*.

Aegithalos caudatus chlamyrhodomelanos Clancey, 1941
Ibis 14: 314.

Paratype: ZFMK 50.116, female, Suthershire, Scotland, 06.09.1938, leg. Clancey.

Holotype at the RSME, Edinburgh, t. t. Dornoch, Sutherland. Described from a series of four specimens. – Dickinson (2003): *Aegithalos caudatus rosaceus* Mathews, 1937.

ALAUDIDAE

Eremophila alpestris aharonii Neumann, 1934
Anz Orn Ges Bayern 2: 333.

Paratype: ZFMK 37.142, female juv. ?, Ras Balbeck, Israel, 18.04.1931, leg. Aharoni.

Bonn zoological Bulletin 59: 29–77

Type specimen at the MCZ, Harvard; others probably also at Tring, UK and also at the MfN, Berlin? Described from a series of thirteen specimens. – Dickinson (2003) presumably: *Eremophila alpestris bicornis* (C.L. Brehm, 1831).

Galerida cristata jordansi Niethammer, 1955
Bonn zool Beitr 6: 57.

Holotype: ZFMK 54.517, male, Abbangarit, NW Agades, Niger, 29.01.1954, leg. G. Niethammer No 480.

Paratype: ZFMK 54.1165, male, Abbangarit, 29.01.1954, leg. G. Niethammer.

A third male is probably lost. – Dickinson (2003): *Galerida cristata jordansi*.

Galerida cristata carthaginiis Kleinschmidt & Hilgert, 1905
Orn Monatsber 13: 188.

Nomen novum for *Galerida cristata macrorhyncha* Erlanger, 1899, nec Tristram, 1859.

Paratype: Coll. Kl. 1488–1491, 4 o, vicinity of Tunis, Tunisia, 20. and 21.01.1899, leg. Blanc, original labels lost.

Type specimen (Coll. Erlanger No 2937) at the SMF, Frankfurt/Main?, t. t. like paratypes. – Dickinson (2003): *Galerida cristata carthaginiis*.

Galerida cristata gafsae Kleinschmidt & Hilgert, 1905
Orn Monatsber 13: 189.

Nomen novum for *Galerida cristata arenicola* Erlanger, 1899, nec Tristram, 1859. Paratypes: Coll. Kl. 1492–1493, 2 males, Bir Sellousa, Tunisia, 07.03.1899, leg. Spatz.

Type specimen in Coll. Erlanger No 2950, leg. Erlanger, t. t. Seggi, Tunisia, currently SMF, Frankfurt/Main. – Dickinson (2003): ? *Galerida cristata carthaginiis*.

Galerida cristata vambéryi Härms, 1907
Orn Monatsber 15: 49.

Holotype: ZFMK H.V.1.a¹⁶.γ., male ad., Utsch-Adschi, Trans-Caspia, 26.02.1900 (14.02.1900 according to the Gregorian Calendar), leg. Härms.

Paralectotypes: ZFMK H.V.1.a¹⁶.β., male, Tedschen, Transcaspia, 13.02.1900; ZFMK H.V.1.a¹⁶.δ., male, Utsch-Adschi, 27.02.1900; ZFMK H.V.1.a¹⁶.ε., female, Tedschen, 31.03.1900, all leg. Härms.

Only type specified in original description, paralectotype designation in Rheinwald & van den Elzen (1984) The type specimen is mentioned in Jordans (1923: 10). – Dickinson (2003): *Galerida cristata magna* Hume, 1871.

Galerida cristata apuliae Jordans, 1935
Orn Monatsber 43: 119.

Holotype: ZFMK H.V.1.a²³.α., male, San Severo, Apulia, Italy, 20.02.1932.

Paratypes: ZFMK H.V.1.a²³.β., male, Cèrignola, Apulia, 11.1931; ZFMK H.V.1.a²³.γ., female, San Severo, Apulia, 20.01.1932.

Description based upon these three specimens. – Dickinson (2003): *Galerida cristata apuliae*.

Galerida schlüteri Kleinschmidt, 1904
Orn Monatsber 12: 196.

Lectotype: Coll. Kl. 1521, female ?, Chefia, vicinity of Bône, N Algeria, 10.1902, leg. Schlüter.

Paralectotypes: Coll. Kl. 1522–1523, 2 male, Bône, 10.1902 and 11.1904, leg. Schlüter, Coll. Kl. 1524–1526, 3 male, Kerrata, Algeria, 28.04. and 21.05.1904, leg. Flükiger.

No type specimen defined in the original description; lectotype designated in Catalogue (Kleinschmidt 1935–1943: 40). – Dickinson (2003): *Galerida theklæ ruficolor* Whitaker, 1898.

[***Galerida desertorum*** Ch. L. Brehm, 1848
Oken Isis 7: 497.

Syntypes: ZFMK 64.251–64.252, male, female, (pair), Hasenhaide/ Berlin, Germany, 28.03.1833, leg. Fehrmann.

See also Homeyer 1848: Orn Briefe: 47; letter from Ch. L. Brehm to Homeyer dated 05.01.1835. Types today at the “Brehm Gedenkstätte” in Renthendorf. – Dickinson (2003): *Lullulla arborea arborea* (Linnaeus, 1758).]

Melanocorypha calandra hollomi Kumerloeve, 1969
Rev Fac Sci Univ Istanbul 34: 261.

Lectotype: ZFMK 68.1774, male, Yüksekova, Turkey, 10.06.1968, leg. Kumerloeve.

Paralectotypes: ZFMK 68.1775, male, Yüksekova, 10.06.1968; ZFMK 68.1776, male, Yüksekova, 10.06.1968; ZFMK 68.1777, male, Yüksekova, 12.06.1968; ZFMK 68.1778, male, Yüksekova, 12.06.1968; ZFMK 68. 1779, male, Yüksekova, 12.06.1968; ZFMK 68.1780, male, Van, 18.06.1968; ZFMK 68. 1781, male, Van, 22.06.1968; ZFMK 68.1782, female, Van, 22.06.1968, leg. Kumerloeve.

No types designated in original description; lectotypes specified in Rheinwald & van den Elzen (1984). – Dickinson (2003): *Melanocorypha calandra calandra* (Linnaeus, 1766).

Melanocorypha calandra dathei Kumerloeve, 1970
Beitr Vogelkunde 16: 246.

Holotype: ZFMK 68.1689, male, Ceylânpinar, Turkey, 10.05.1968, leg. Mittendorf No 54.

Paratypes: ZFMK 68.1690, male, Ceylânpinar, Turkey, 10.05.1968; ZFMK 68. 1691, male, Ceylânpinar, Turkey, 09.05.1968; ZFMK 68. 1692, male, Ceylânpinar, Turkey, 07.05.1968; ZFMK 68.1693, female, Ceylânpinar, 14.05.1968; ZFMK 60.970, male, Muratpasa, Syria, 22.05.1953; ZFMK 64.3056, male, Birecik, Turkey, 22.05.1964; ZFMK 64.3057, male, Birecik, Turkey, 22.05.1964; ZFMK 64.3064, male, Djabou, Syria, 08.06.1964; ZFMK 64.3065, male, Djabou, Syria, 08.06.1964, all leg. Mittendorf. – Dickinson (2003): *Melanocorypha calandra gaza* Meinertzhagen, 1919

Calandrella brachydactyla woltersi Kumerloeve, 1969
J Ornithol 110: 324.

Holotype: ZFMK 68.1752, male, Amik Gölü, Turkey, 03.05.1968, leg. Mittendorf.

Paratypes: ZFMK 68.1750, male, Bedirge, 02.05.1968; ZFMK 68.1751, male, Amik Gölü, 03.05.1968; ZFMK 68. 1753, female, Amik Gölü, 03.05.1968; ZFMK 68.1754, female, Amik Gölü, 03.05.1968, all leg. Mittendorf. – Dickinson (2003): *Calandrella brachydactyla woltersi*.

Calandrella rufescens niethammeri Kumerloeve, 1963
Vogelwelt 84: 147.

Holotype: ZFMK 62.950, male, Eber Gölü, Turkey,
09.06.1962, leg. Mittendorf.

Paratypes: ZFMK 62.951, male, Eber Gölü, 09.06.1962;
ZFMK 62.952 male, Eber Gölü, 09.06.1962; ZFMK 62.
953, male, Eber Gölü, 09.06.1962; ZFMK 62.954, male,
Eber Gölü, 09.06.1962; ZFMK 62.955, male, Eber Gölü,
09.06.1962, all leg. Mittendorf. – Dickinson (2003): *Ca-
landrella cheleensis niethammeri*.

Alaemon Margaritae Koenig, 1888
J Ornithol 36: 228.

Syntypes: ZFMK H.V.9.a¹.γ., male, near Gabes, Tunisia,
18.03.1887; ZFMK H.V.9.a¹.ε., female, near Gabes, Tunes-
sia, 18.03.1887, leg. Koenig. – Dickinson (2003): *Cher-
sophilus duponti margaritae* (Koenig, 1888).

Ammomanes deserti kollmannspergeri Niethammer,
1955

Bonn zool Beitr 6: 59.

Holotype: ZFMK 54.1202, male, 20 km SE of Fada, Chad,
03.04.1954, leg. Kollmannsperger.

Paratypes: ZFMK 54.1201 male, E Fada, 04.1954;
ZFMK 54.1203, female, E Fada, 04.1954; ZFMK 80.376,
female, E Fada, 04.1954.

Described from four males and two females; whereabouts
of other specimens unknown. – Dickinson (2003): *Ammo-
manes deserti kollmannspergeri*.

Ammomanes phoenicura pallens le Roi, 1912
Orn Monatsber 20: 6.

Syntypes: ZFMK H.V.6.b².θ., male, Bir Sani, Bajuda
steppe, “Egyptian Sudan”, 03.03.1903; ZFMK H.V.6.b².γ.,
female, Bir Sani, Bajuda steppe, Egyptian Sudan,
27.02.1903, leg. Koenig.

Paratypes: ZFMK H.V.6.b².α., male, Bajuda steppe,
01.03.1903; ZFMK H.V.6.b².β. female, Bajuda steppe,
26.02.1903; ZFMK H.V.6.b².δ., female, Bir Sani, Bajuda
steppe, 27.02.1903; ZFMK H.V.6.b².ε., female, Bir
Sani, Bajuda steppe, 27.02.1903; ZFMK H.V.6.b².ζ., male,
Bajuda steppe, 02.03.1903; ZFMK H.V.6.b².η., female,
Bajuda steppe, 02.03.1903; ZFMK H.V.6.b².κ., Chor Abu
Harrasch, 04.03.1903, all leg. A. Koenig.

Bonn zoological Bulletin 59: 29–77

One paratype in Tring, UK. – Dickinson (2003): *Ammo-
manes cinctura arenicolor* Sundevall, 1851.

Ammomanes grayi hoeschi Niethammer, 1955
Bonn zool Beitr 6: 185.

Syntypes/paralectotypes: ZFMK 66.895, male, female,
Namib, W Orupembe, Kaokoveld, Namibia, 27.06.1952
(=UMB 19887); ZFMK 66.896, female, Namib, W Oru-
pembe, Kaokoveld, 27.06.1952(=UMB 19888), all leg.
Hoesch.

Described from four specimens. In the original descrip-
tion male No 19889 of the UMB is defined as type spec-
imen, the ZFMK specimens are labelled as syntypes. List-
ed as syntypes in Rheinwald & van den Elzen (1984). The
second female mentioned in the original description is not
at the ZFMK. – Dickinson (2003): *Ammomanes grayi
hoeschi*.

Mirafrja sabota uis Hoesch & Niethammer, 1940
J Ornithol 88, Sonderheft: 219

Holotype: ZFMK 39.983, female, Uis, pre-Namib, Namib-
ia, 22.09.1938, leg. Hoesch and Niethammer No 117.

Paratype: ZFMK 39.921, female, 70 km E of Uis,
27.09.1938, leg. Hoesch and Niethammer.

Two further specimens mentioned in the original descrip-
tion are not at the ZFMK. – Dickinson (2003): *Mirafrja
sabota naevia* (Strickland, 1853).

Mirafrja africanoides isseli Hoesch & Niethammer, 1940
J Ornithol 88, Sonderheft: 215.

Syntypes: ZFMK 39.897, male, south of Okahandja,
Damaraland, Namibia, 04.09.1938; ZFMK 39.898, fe-
male, south of Okahandja, Damaraland, Namibia,
04.09.1938, leg. Niethammer No 42 and without No.,
prep. Issel.

Subsequently defined as *Mirafrja africanoides omaruru*
(Roberts, 1936) by Niethammer. – Dickinson (2003): *Mi-
rafrja africanoides harei* Roberts, 1917.

PYCNONOTIDAE

Phyllastrephus leucolepis Gatter, 1985
J Ornithol 126: 155.

Holotype: ZFMK 84.221, o, 20 km NW Zwedru near Cavalla River, Grand Gedeh County, Liberia (06°12'N, 08°11'W), 16.01.1984, leg Gatter.

Described from that specimen only. – Dickinson (2003): *Phyllastrephus leucolepis*.

SYLVIIDAE

Regulus satelles Koenig, 1889
J Ornithol 37: 263.

Syntype: ZFMK G.X.6.a³.δ., male, Pinar, Tenerife, 11.04.1889, leg. Koenig.

Synonym of *Regulus teneriffae* Seebohm, 1883, the syntype is obviously the only remaining from a series of four specimens. – Dickinson (2003): *Regulus regulus teneriffae* Seebohm, 1883.

Regulus regulus ellenthalerae Päckert, Dietzen, Martens, Wink & Kvist, 2006
J Avian Biol 37: 378.

Holotype: ZFMK G.X.6.a³.σ., male, Hoya Grande, La Palma, 01.1905, leg. Thanner.

Paralectotypes: ZFMK G.X.6.a³.γγ., female, El Paso, La Palma, 01.1905; ZFMK G.X.6.a³.κκ., male, Pinar, Hierro, 02.1905, all leg. Thanner.

Described from a larger series of another six males and three females from La Palma, and two males, two females from Hierro, all ZFMK, Bonn.

Regulus ignicapillus balearicus Jordans, 1923
Falco 19: 3.

Holotype: ZFMK G.X.6.b².α., female, Lluch, Majorca, 24.03.1913, leg. A. von Jordans, No 1618.

Paratypes: ZFMK G.X.6.b².δ., female, Lluch, Majorca, 24.03.1913; ZFMK G.X.6.b².δ., female, Lluch, 24.03.1913; ZFMK G.X.6.b².ε., male, Fornalutx, 17.03.1913; ZFMK G.X.6.b².θ., male, Artà, 23.04.1913;

ZFMK G.X.6.b².ι., male, Palma-Valdemosa, 10.03.1913; ZFMK G.X.6.b².κ., male, Lluch, 24.03.1913; all leg. A. v. Jordans.

Described from fifteen individuals; ten registered in the inventory of the ZFMK skin collection; of these three exchanged with NHM Louisiana, MfN, Berlin. Whereabouts of the five missing specimens uncertain. – Dickinson (2003): *Regulus ignicapillus balearicus*.

Cettia cetti salvatoris Jordans, 1914
Falco 10: 41.

Lectotype: ZFMK H.I.7.a¹.α., male, Albufereta, Majorca, 27.03.1913, leg. A. von Jordans, No 742.

Paralectotypes: ZFMK H.I.7.a¹.β., male, Albufereta, Majorca, 27.03.1913; ZFMK H.I.7. a¹.θ., male, Albufereta, Majorca, 27.03.1913, all leg A. v. Jordans.

Originally described from a series of four specimens; lectotype designated by Rheinwald & van den Elzen (1984) from information of ZFMK inventory; fourth specimen not registered there, whereabouts unknown. – Dickinson (2003) presumably: *Cettia cetti cetti* (Temminck, 1820).

Acrocephalus dumetorum gabrielae Neumann, 1934
Verh Orn Ges Bayern 20: 470.

Paralectotypes: ZFMK H.I.2.e³.δ., male, Solak, Asia Minor, 27.05.1934; ZFMK H.I.2.e³.ε female, Elmali, Asia Minor, 11.06.1934, leg. G. Neuhäuser.

Described from three males and one female. Synonym of *Hippolais pallida elaeica* Lindermayer, 1843, see Orn. Monatsber. 42: 178.

Hippolais pallida laeneni Niethammer, 1955
Bonn zool Beitr 6: 66.

Holotype: ZFMK 54.417, male ad., Bol, Chad, 15.04.1954, leg. Laenen.

Paratypes: ZFMK 54.415, male, Bol, Chad, 31.03.1954; ZFMK 54.429, , Bol, Chad, 16.04.1954, all leg. Laenen.

Described from three males, two females and one juvenile; whereabouts of other specimens unknown. – Dickinson (2003): *Iduna pallida laeneni* (Niethammer, 1955).

Hypolais icterina Borisi Jordans, 1940
Mitt Königl Naturwiss Inst Sofia 13: 103.

Holotype: ZFMK 38.796, male ad., Kamtschyja, E Bulgaria, 07.06.1935, leg. Heinrich, Inv. No 307 (Museum Warsaw).

Described from a series of twelve specimens; no paratypes designated in original description. – Dickinson (2003): monotypic: *Hippolais icterina* (Vieillot, 1817).

Melocichla mentalis incana Diesselhorst, 1959
Opusc Zool 36: 1.

Holotype: ZFMK 58.324, female, Momella-Meru Mountains, Tansania, 17.01.1958, leg. Nagy.

Described from four females, one o. Further material (paratypes) presumably at the ZSM, Munic. – Dickinson (2003): *Melocichla mentalis incana*.

Cisticola iuncidis intermedia Jordans, 1923
Falco 19, Sonderheft: 3.

Holotype: ZFMK H.I.9.a¹.o., male, Albufera, Majorca, 11.05.1921, leg. A. von Jordans No 3050.

Presumed paratypes: ZFMK H.I.9.a¹.κ., male, Albufereta, Majorca, 27.03.1913; ZFMK H.I.9.a¹.λ., male, Albufereta, Majorca, 29.03.1913; ZFMK H.I.9.a¹.μ., male, Albufereta, Majorca, 09.04.1913; ZFMK H.I.9.a¹.ν., male, Estany de Gambas, 02.05.1913; ZFMK H.I.9.a¹.ξ., female, Albufera, 31.03.1913; ZFMK H.I.9.a¹.π., male, Albufera, 10.06.1921; ZFMK H.I.9.a¹.ρ., female, Alcudia, 07.05.1921; ZFMK H.I.9.a¹.σ., male, Alcudia, 04.05.1921; ZFMK H.I.9.a¹.τ., female, Alcudia, 04.05.1921; ZFMK H.I.9.a¹.φ., male, Alcudia, 06.05.1921; ZFMK H.I.9.a¹.χ., female, Albufera, 11.05.1921; ZFMK H.I.9.a¹.ψ., female, Albufera, 16.05.1921, all leg. A. von Jordans.

Described from seventeen specimens, no paratypes designated or described in detail. In inventories of the ZFMK bird collection only fifteen specimens registered, one specimen exchanged with MfN, Berlin. – Dickinson (2003): *Cisticola juncidis cisticola* (Temminck, 1820).

Eremomela icteropygialis laeneni Niethammer, 1955
Bonn zool Beitr 6: 65.

Holotype: ZFMK 54.390, male, Bol, Chad, 03.04.1954, leg. Laenen.

Paratype: ZFMK 54.410, female, Bol, 15.04.1954, leg. Laenen.

Described from three specimens; the second male listed in the original description is not at the ZFMK. – Dickinson (2003): ?*Eremomela icteropygialis alexanderi* Sclater & Mackworth-Praed, 1918.

Sylvia sarda balearica Jordans, 1913
Falco 9: 43.

Holotype: ZFMK H.I.21².b¹.α., male, Isla Dragonera of the W coast of Mallorca, 19.04.1913, leg. A. von Jordans No 629.

Paratypes: ZFMK H.I.21².b¹.β., male juv., E of Sta Ponza, Majorca, 15.05.1913; ZFMK H.I.21².b¹.γ., female, Santany, 01.05.1913; ZFMK H.I.21².b¹.δ., male, San Telmo, Andraitx, 15.04.1913; ZFMK H.I.21².b¹.ε., male, Alcudia, 02.04.1913; ZFMK H.I.21².b¹.ζ., female, Alcudia, 28.03.1913; ZFMK H.I.21².b¹.η., male, Dragonera, 16.04.1913; ZFMK H.I.21².b¹.ι., male, Alcudia, 02.04.1913; ZFMK H.I.21².b¹.κ., male juv., Cabrera, 12.05.1913; ZFMK H.I.21².b¹.λ., male, Isla Dragonera, 16.04.1913; ZFMK H.I.21².b¹.μ., male, Alcudia, 28.03.1913, all leg. A. von Jordans.

Described from a series of nineteen specimens (ten males, seven females, two juveniles), twelve specimens registered in the ZFMK inventory, one paratype exchanged with the AMNH, New York. – Dickinson (2003): *Sylvia sarda balearica*.

Sylvia communis traudeli Kumerloeve, 1969
Rev Fac Sci Univ Istanbul 34: 274.

Holotype: ZFMK 68.1906, male, Van, Turkey, 31.05.1968, leg. Mittendorf No 152.

Paratypes: ZFMK 68.1904, male, Ceylânpinar, 09.05.1968; ZFMK 68.1905, male, Ceylânpinar, 17.05.1968; ZFMK 68.1907, male, Hakkâri-Beytüşebap, 05.06.1968; ZFMK 68.1908, male, W of Yüksekova, 12.06.1968; ZFMK 68.1909, male, W of Yüksekova, 12.06.1968; ZFMK 68.1910, male, Tatvan, 06.07.1968, all leg. Mittendorf.

Described from ten specimens, the specimens from 1965 could not be identified with certainty. – Dickinson (2003): *Sylvia curruca curruca* (Linnaeus, 1758).

Sylvia melanocephala pasiphaë Stresemann & Schiebel, 1925

J Ornithol 58: 659.

Paratype: ZFMK 57.998, male, Suda near Canea, Crete, 26.04.1925, leg. Schiebel.

Holotype at the ZMB, Berlin; no other specimens specified. – Dickinson (2003): *Sylvia melanocephala pasiphaë*.

Sylvia semenowi Zarudny, 1904

Orn Jahrb 15: 220–221.

Paralectotype: ZFMK H.I.21.1.γ., male, Karun Tschinebe, W Iran, 25.01.1904 (= 12.01.1904 Gregorian Calendar), ex. Coll. Zarudny No 1630, Coll. A. von Jordans No 2542.

Specimen belongs to the type series and is published as “cotype” by Jordans (1923: 26); described from seven specimens. Whereabouts of other specimens unknown. – Dickinson (2003): *Sylvia mystacea rubescens* Blanford, 1817.

Sylvia borin Pateffi Jordans, 1940

Mitt Königl Naturwiss Inst Sofia 13: 105.

Holotype: ZFMK 38.633, male ad., Bansko, Bulgaria, 05.06.1938, leg. A. von Jordans.

Paratype: ZFMK 38.634, male, Pirin Mountains near Bansko, 13.06.1938, leg. A. von Jordans.

Described from these two specimens. – Dickinson (2003): *Sylvia borin woodwardi* (Sharpe, 1877).

Sylvia clarae Kleinschmidt, 1901

Orn Monatsber 9: 167.

Holotype: Coll. Kl. 3608, male, Gafsa, Tunisia, 06.05.1899, leg. Spatz.

Paratype: Coll. Kl. 3609, female, Gafsa, 07.05.1899, leg. Spatz. – Dickinson (2003): *Sylvia borin borin* (Boddaert, 1783).

Sylvia atricapilla koenigi Jordans, 1923

Falco 19, Sonderheft: 3.

Holotype: ZFMK H.I.21.d¹.α., male, Artà, Majorca, 26.04.1913, leg. A. von Jordans No 977.

Paratypes: ZFMK H.I.21.d¹.γ., male, Esporlas, 20.05.1913; ZFMK H.I.21.d¹.δ., male, Artà, 23.04.1913; ZFMK H.I.21.d¹.ε., male, Valldemosa, 15.03.1913; ZFMK H.I.21.d¹.ζ., female, Valldemosa, 12.04.1913; ZFMK H.I.21.d¹.η., female, Esporlas, 12.03.1913; ZFMK H.I.21.d¹.θ., male, Valldemosa, 12.04.1913; ZFMK H.I.21.d¹.ι., male, Palma-Valldemosa, 10.03.1913; ZFMK H.I.21.d¹.κ., male, Albufera, 18.05.1921; ZFMK H.I.21.d¹.λ., male, Valldemosa, 03.05.1921; ZFMK H.I.21.d¹.μ., male, Alcudia, 20.06.1921; ZFMK H.I.21.d¹.ν., male, Alcudia, 20.06.1921; ZFMK H.I.21.d¹.ξ., male, Alcudia, Majorca, 20.06.1921, all leg. A. v. Jordans.

Described from twenty-two specimens, one exchanged with the MfN, Berlin; the whereabouts of the remaining skins are unknown. – Dickinson (2003): *Sylvia atricapilla pauluccii* Arrigoni, 1902.

TIMALIIDAE

Pnoepyga immaculata Martens & Eck, 1991

J Ornithol 132: 180.

Holotype: ZFMK 91.03, male, Thakkola, beneath Lete, 2530m, Mustang district, Nepal, 01.05.1980, leg. Martens.

Paratype: ZFMK 71.946, female, Thakkola, Chadziou Khola, 2600 m, Mustang district, 30.06.1970, leg. Martens.

Described from a series of two males and two females; other paratypes at the ZSM, Munich and CNHM, Chicago; topotypical material at the ZFMK. – Dickinson (2003): *Pnoepyga immaculata*.

Panurus biarmicus kosswigi Kumerloeve, 1958

Bonn zool Beitr 9: 197.

Holotype: ZFMK 58.460, male, Amik-Gölü, Turkey, 08.05.1953, leg. Kumerloeve.

Paratypes: ZFMK 58.461, male, Amik-Gölü, Turkey, 06.05.1953; ZFMK 58.462, Amik-Gölü, 06.05.1953; ZFMK 58.463, female, Amik-Gölü, 08.05.1953, all leg. Kumerloeve. – Dickinson (2003): *Panurus biarmicus kosswigi*.

Trochalopteron (Janthocichla) lineatum bilkevitchi
Zarduny, 1910

Orn Monatsber 18: 188.

Paralectotype: ZFMK H.I.20^a.a'. α ., male, Chermadschan, Buchara, Russland, 14.07.1910 (= 01.07. Gregorian Calendar), leg. Zarudny, Coll. Härms No 1763, Coll. v. Jordans No 1551.

Status derived from handwritten "Cotype" on label. – Dickinson (2003): *Garrulax lineatus bilkevitchi* (Zarduny, 1910).

ZOSTEROPIDAE

Zosterops poliogaster gerhardi van den Elzen & König, 1983

Bonn zool Beitr 34: 164.

Paratypes: ZFMK 78.195, female, Gilo, Imatong Mountains, S Sudan, 06.01.1978; ZFMK 78.196, male, Gilo, 03.01.1978; ZFMK 78.197, male, Gilo, 03.01.1978, all leg. Nikolaus.

Holotype and two paratypes at the SMNS, Stuttgart (Holotype No 55.187, paratypes No. 55.185, 55.186). – Dickinson (2003) presumably: *Zosterops poliogastrus kaffensis* Neumann, 1902.

TROGLODYTIDAE

Troglodytes troglodytes stresemanni Schiebel, 1926

Orn Monatsber 34: 14.

Holotype: ZFMK 57.1055, male, Elos, SW Crete, 24.04.1925, leg. Schiebel.

Described from seven specimens. A specimen labelled as „cotype“ is housed at the MfN, Berlin (No 25.1444), topotypical material at the ZFMK (57.1054, 57.1056–57.1059, Topolia, Homalo, 24.04.–05.05.1925). – Dickinson (2003): *Troglodytes troglodytes troglodytes* (Linnaeus, 1758).

Troglodytes troglodytes weigoldi Jordans, 1923

Orn Monatsber 31: 14.

Paratype: ZFMK G.VII.1.a⁵. α ., Favaio, Portugal, 20.03.1913, leg. Weigold.

Holotype and paratype at the MfN, Berlin, t .t. Oporto.

Described from three specimens. – Dickinson (2003) presumably: *Troglodytes troglodytes kabylosum* E. Hartert, 1910.

Troglodytes troglodytes mülleri Jordans, 1928

Nov. Zool. 34: 283.

Holotype: ZFMK G.VII.1.a². α ., male, Valldemosa, Mallorca, 12.04.1913, leg. A. von Jordans No 693.

Paratypes: ZFMK G.VII.1.a². β ., male, Alcudia, 28.03.1913; ZFMK G.VII.1.a². γ ., female, Valldemosa, 14.03.1913; ZFMK G.VII.1.a². δ ., male, Valldemosa, 12.04.1913; ZFMK G.VII.1.a². ϵ ., male, Valldemosa, 28.03.1913; ZFMK G.VII.1.a². ζ ., male, Alcudia, 28.03.1913; ZFMK G.VII.1.a². η ., o, Alcudia, 28.03.1913; ZFMK G.VII.1.a². θ ., male, Lluch, 22.03.1913; ZFMK G.VII.1.a². ι ., male, Alcudia, 26.03.1913; ZFMK G.VII.1.a². κ ., male, Santany, 05.04.1913; ZFMK G.VII.1.a². λ ., male, Lluch, 18.04.1921; ZFMK G.VII.1.a². μ ., male juv., Albufera, 18.05.1921; ZFMK G.VII.1.a². ξ ., male juv., Alcudia, 04.06.1921; ZFMK G.VII.1.a². $\omicron$., male juv., Alcudia, 04.06.1921; ZFMK G.VII.1.a². π ., male, Alcudia, 18.05.1921; ZFMK G.VII.1.a². ρ ., male, Valldemosa, 03.05.1921; ZFMK G.VII.1.a². σ ., Lluch, 09.04.1921; ZFMK G.VII.1.a². τ ., Valldemosa, 28.03.1921; ZFMK G.VII.1.a². υ ., female, Alcudia, 10.06.1927, all leg. A. v. Jordans.

Described from a series of twenty-seven individuals, twenty registered in inventory of ZFMK bird skin collection, one specimen exchanged with MfN, Berlin. Whereabouts of other specimens unknown. – Dickinson (2003) presumably: *Troglodytes troglodytes kabylosum* E. Hartert, 1910.

Troglodytes parvulus hyrcanus Zarudny & Loudon, 1905
Orn Monatsber 13: 107.

Paralectotype: ZFMK G.VII.1.a⁴. α ., male, Kuljam-Chadschi-Ali, W Iran, 26.10.1903 (= 13.10.1903 Gregorian Calendar), Coll. Zarudny No 1638, ex Coll. Jordans.

No information on material was given in the original description; no types designated. The whereabouts of the other specimens are unknown; the ZFMK specimen was labelled "cotype" by A. von Jordans subsequently and defined as paralectotype by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Troglodytes troglodytes hyrcanus*.

SITTIDAE

Sitta dresseri Zarudny & Buturlin, 1906
Orn Monatsber 14: 132.

Paralectotype: ZFMK G.IX.1.e¹.α., male, Charadschi (=Kharaji), W Iran, 14.04. (= 28.04. in the Gregorian Calendar) 1904, leg. Zarudny No 1631, ex coll. A. von Jordans 1068.

Described from a series of unknown size; measurements are given from eight specimens. Zarudny & Härms (1923) mention twelve specimens collected, so according to Mlikovsky (2007) the syntype series consisted of twelve specimens. Specimen of ZFMK labelled by A. v. Jordans as “cotype” and published in Jordans (1923: 18); lectotype in NHMW, Vienna, for details see Mlikovsky (2007). – Dickinson (2003): *Sitta tephronota dresseri*.

Sitta tschitscherini Zarudny, 1904
Orn Jahrb 15: 218.

Paralectotype?, ZFMK G.IX.1.d³. α., male ad., Sarchun, (Sar Khun), NW Iran, 21.12. 1903 (= 03.01.1904 in the Gregorian Calendar), coll. Zarudny No 1484, ex Coll. A. von Jordans 1064.

In original description three specimens from Ispahan (=Es-fahan), Iran, presented with measurements, but no dates; ZFMK specimen labelled by A. v. Jordans as “cotype”, also registered as “cotype” in inventory and published as cotype in Jordans (1923: 18). Specimen not included in Mlikovsky (2007). – Dickinson (2003): *Sitta neumayer tschitscherini*.

Sitta europaea rubiginosa Tschusi & Zarudny, 1905
Orn Jahrb 16: 140.

Paralectotypes ? : ZFMK G.IX.1.a¹¹. α., male, Sermab-Dasht, N Iran, 09.10.1903 (= 22.10.1903 in the Gregorian Calendar), leg. Zarudny No 1633, ex coll. A. von Jordans No 1055; ZFMK G.IX.1.a¹¹. β., female, Sermab-Dasht, N Iran, 9.10.1903 (= 22.10.1903 in the Gregorian calendar), leg. Zarudny No 1823, ex coll. A. von Jordans No 1056.

Type specimen designated in original description; male, Asterabad, 09.10.1903, No 5501, Coll. v. Tschusi; probably in the NHMW, Vienna; paralectotypes labelled by A. von Jordans as “cotypes”, also registered as such in inventory of the ZFMK bird collection. – Dickinson (2003): *Sitta europaea rubiginosa*.

Sitta reichenowi Kleinschmidt, 1917
Falco 13: 21.

Lectotype: Coll. Kl. 5058, male, Myslowitz, Silesia, 29.03.1911, leg. Natorp.

Very poor description, type designated only in Catalogue (Kleinschmidt 1935–1943: 108). There also the numbers Coll. Kl. 5059–5062 are listed under the same species name and locality and may be paralectotypes. – [Dickinson (2003)]: *Sitta europaea europaea* > *caesia*

Sitta hassica Kleinschmidt, 1917
Falco 13: 22.

Lectotype: Coll. Kl. 5000, female, Kornsand/Rhine, 30.08.1889, leg. Kleinschmidt.

Paralectotype: Coll. Kl. 5001, male, Knoblochsau/Rhine, near Darmstadt, 17.09.1899, leg. Kleinschmidt.

Very poor description, no type specimens defined in either description or in Catalogue (Kleinschmidt 1935–1943: 108). Lectotype and paralectotype designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Sitta europaea caesia* Wolf, 1810.

Sitta Auto-Sitta hoerningi Kleinschmidt, 1928
Berajah, Sitta Auto-Sitta: 6.

Holotype: Coll. Kl. 5024, female, Mehliß, Thuringian Forest, 30.04.1928, leg. Hörning.

Paralectotypes: Coll. Kl. 5021–5023, 2 males, female, 17.02.1920 and 30.04.1928, and 5025–5027, 2 females, o, 22.09., 14.12.1919 and 22.09.1928, locality and collector like holotype.

In the original description only the holotype is designated, other topotypical specimens are not specified in detail. Paralectotypes designated by Rheinwald & van den Elzen (1984), based on entry in Catalogue (Kleinschmidt 1935–1943: 108). – Dickinson (2003): *Sitta europaea caesia* Wolf, 1810.

Sitta Auto-Sitta dalmatina Kleinschmidt, 1928
Berajah, Sitta Auto-Sitta: 13.

Nomen novum for *Sitta caesia longirostris* A. E. Brehm, 1866; Verz. Sammlungen., p.6 (nomen nudum).

Holotype: Coll. Kl. 5013, male, Castelnuovo, Dalmatia, 24.03.1914.

Paratype: Coll. Kl. 5014, female, Castelnuovo, Dalmatia, 11.09.1912. – Dickinson (2003): *Sitta europaea cisalpina* Sachtleben, 1919.

Sitta siciliae Kleinschmidt & Jordans, 1932
Falco 28: 6.

Holotype: Coll. Kl. 5012, male, Troina, Sicily, 18.09.1929, per Rosenberg.

Paratypes: ZFMK G.IX.1.a⁶.α. and β., 2 females, Enna, Sicily, 10.09.1929, per Rosenberg.

– Dickinson (2003): *Sitta europaea cisalpina* Sachtleben, 1919.

Sitta Auto-Sitta bacmeisteri Kleinschmidt, 1943
Katalog meiner ornithologischen Sammlung: 108.

Holotype: Coll. Kl. 4989, male, Vitarville, Departement Meuse, France, 15.09.1916, leg. Bacmeister.

Only this specimen was labelled as “*bacmeisteri*”, however, Coll. Kl. 4990–4997 are listed as “*bacmeisteri*” in the Catalogue (Kleinschmidt 1938–1943), too. These might therefore be recognized as paratypes. – Dickinson (2003): *Sitta europaea caesia* Wolf, 1810.

Sitta europaea itschangensis Kleinschmidt & Weigold, 1922
Abh Ber Mus Tierk Dresden 15: 9.

Paralectotype: Coll. Kl. 5121, male, near Itschang, China, 14.II.1914, leg. Weigold.

Described from a series of nine specimens. The holotype was at the SNS, Dresden C 23936 and was lost in 1945; topotypical material exists in Dresden (Eck, 1970), designated by Eck & Quaiser (2004) as syntypes; paralectotype status designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Sitta europaea sinensis* Verreaux, 1871.

Sitta (europaea) tibetosinensis Kleinschmidt & Weigold, 1922
Abh Ber Mus Tierk Dresden, 15: 10.

Paralectotype: Coll. Kl. 5132, male, Samendo, E Tibet, 16.10.1915, leg. Weigold.

Described from three specimens; type specimen at the SNS, Dresden. C 23942, lost in 1945; (Eck, 1970); third Bonn zoological Bulletin 59: 29–77

specimen in Dresden (Eck & Quaiser 2004). Paralectotype status designated by Rheinwald & van den Elzen (1984). – Dickinson (2003) presumably: *Sitta nagaensis montium* La Touche, 1899.

CERTHIIDAE

Certhia rhenana Kleinschmidt, 1900
Orn Monatsber 8: 169.

Holotype: Coll. Kl. 5222, male, Gunterhausen, banks of the River Rhine between Mainz and Worms, 08.11.1897, leg. Kleinschmidt.

Paralectotypes: Coll. Kl. 5223–5227, 3 males, female, o, Knoblochsau/Rhine near Darmstadt, 17.09.1899, 09.01.1898, 11.01.1898, 15.08.1892, leg. Kleinschmidt.

Only type specimen designated in the original description, paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Certhia familiaris macrodactyla* C. L. Brehm, 1831.

Certhia brachydactyla nigricans Jordans, 1931
Orn Monatsber 39: 181.

Holotype: ZFMK G.VIII.1.b⁶.i., male, Mosqueruela, Ternel, E Spain, 09.01.1931, leg. Grün.

Paratypes: ZFMK G.VIII.1.b⁶.β., male, Mosqueruela, E Spain, 02.01.1931; ZFMK G.VIII.1.b⁶.κ., o, Mosqueruela, Ternel, 05.01.1931; ZFMK G.VIII.1.b⁶.λ., o, Mosqueruela, Ternel, 05.01.1931, all leg. Grün.

Described from six specimens collected in January. Further two individuals from the same locality, dated 12.1930 and 02.1933, are labelled as “cotypes”, though only birds from January are mentioned in the original description. – Dickinson (2003): *Certhia brachydactyla brachydactyla* C. L. Brehm, 1820.

Certhia brachydactyla obscura Jordans, 1934
Alauda 5: 522.

Holotype: ZFMK G.VIII.1.b⁸.α., male, Lagunilly-Bejar, Spain, 27.10.1933, leg. Grün.

Paralectotypes: ZFMK.G.1.b⁸.ζ. male, Lagunilla, 19.10.1933; ZFMK.G.1.b⁸.ε., female, Lagunilla, 20.10.1933, all leg. Grün.

Described from six specimens, only the holotype is designated; in the footnote further five specimens are mentioned as newly arrived and “perfectly matching”. The five specimens in the ZFMK skin collection, dated from December 1933 were therefore not recognized as paratypes (Rheinwald & van den Elzen 1984). Two paratypes were exchanged with the AMNH, New York, one handed to Fouard. – Dickinson (2003): *Certhia brachydactyla megarhyncha* C. L. Brehm, 1831.

STURNIDAE

Sturnus balcanicus Buturlin & Härms, 1909
Orn Monatsber 17: 56.

Syntypes: ZFMK F.III.1.a⁵. α., male, Barza, Romania, 01.06.1901, ex Coll. Härms No 1143; ZFMK F.III.1.a⁵.β., male, Fetsci, 20.03.1907, ex Coll. Härms 1243; ZFMK F.III.1.a⁵. δ., 2 females, Cernovoda, 24.04.1906, ex Coll. Härms No 1249.

Described from a series of twelve specimens; whereabouts of the other specimens uncertain. – Dickinson (2003): *Sturnus vulgaris vulgaris* Linnaeus, 1758.

TURDIDAE

Turdus merula mallorcae Jordans, 1950
Syll Biol, Festschr Kleinschmidt: 172.

Lectotype: ZFMK H.III.1.a⁸.θ, male, Arta, Majorca, 22.04.1913, leg. A. von Jordans No 802.

Paralectotypes: ZFMK H.III.1.a⁸.α., male, Esporlas, 20.05.1913; ZFMK H.III.1.a⁸.β., Arta, Majorca, 23.04.1913; ZFMK H.III.1.a⁸.γ., female, Arta, Majorca, 24.04.1913; ZFMK H.III.1.a⁸.δ., female, Santany, 07.05.1913; ZFMK H.III.1.a⁸.ε., male, Arta, Majorca, 22.04.1913, leg A. v. Jordans No 804; ZFMK H.III.1.a⁸.ζ., Santany, 07.05.1913; ZFMK H.III.1.a⁸.ι., male, Alcudia, Mallorca, 05.04.1913; ZFMK H.III.1.a⁸.κ, male, Arta, Majorca, 22.04.1913, leg A. V. Jordans 803; ZFMK H.III.1.a⁸.λ., male, Arta, 03.04.1921; ZFMK H.III.1.a⁸.μ., male, Arta, 31.03.1921; ZFMK H.III.1.a⁸.ν., male juv., Alcudia, 09.06.1921; ZFMK H.III.1.a⁸.ξ., male juv., Alcudia, 09.06.1921; ZFMK H.III.1.a⁸.ο., male juv., Alcudia, 22.06.1921; ZFMK H.III.1.a⁸.π., female juv., Santany, 04.05.1913; ZFMK H.III.1.a⁸.ρ., male juv., Albufera, 18.05.1921, all leg. A. v. Jordans.

Described from seventeen specimens, sixteen still in the ZFMK collections. Three males are registered in the inventory under 22.04.1913; information on type status taken from label in collection of ZFMK (Rheinwald & van den Elzen 1984). One specimen has been exchanged with the AMNH, New York. – Dickinson (2003) presumably: *Turdus merula merula* Linnaeus, 1758.

Turdus hispaniae Kleinschmidt, 1909
Falco 5: 22.

Lectotype: Coll. Kl. 3378, male, Malaga, Spain, 24.09.1903, per Schlüter.

Paralectotypes: Coll. Kl. 3379–3380, 2 male, Malaga, 15.01.1904 and 15.04.1905, per Schlüter.

No types designated in the original description; types and paratypes designated by Kleinschmidt (1935–1943: 84) in his Catalogue. – Dickinson (2003): *Turdus merula merula* Linnaeus, 1758.

Turdus rüdigeri Kleinschmidt, 1919
Falco 14: 15.

Holotype: Coll. Kl. 3367, female, Chambley, E France, 18.04.1918, leg. Rüdiger.

Paralectotypes: Coll. Kl. 3364–3366, male, male juv., female, Cote Chambley, E France, and “France”, 21.01.–18.04.1918, leg. Rüdiger.

Only holotype specified; paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Turdus merula merula* Linnaeus, 1758.

Turdus ultrapilaris Kleinschmidt, 1919
Falco 14: 16.

Lectotype: Coll. Kl. 3297, male, Issyk-Kul, W Asia, 05.01.1908, leg. Tancre.

Paralectotypes: Coll. Kl. 3298–3299, male, female, Issyk-Kul, 05.01.1908, leg. Tancre.

Rather poor description, no type defined. Information on type status from Catalogue (Kleinschmidt 1935–1943: 83); paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Turdus pilaris* Linnaeus, 1758.

Turdus pseudohodgsoni Kleinschmidt, 1909
Falco 5: 20.

Holotype: Coll. Kl. 3262, male, Taschkent, Russia, 02.03.1908.

There was apparently no further material at hand for the description. – Dickinson (2003): *Turdus viscivorus viscivorus* Linnaeus, 1758.

Turdus viscivorus hispaniae Jordans, 1950
Syll Biol, Festschr Kleinschmidt: 171.

Holotype: ZFMK 46.179, male, Linares de Riofrio, Spain, 08.04.1943, leg. Grün.

Paratypes: ZFMK 46.180, male, Linares, 01.04.1943; ZFMK 46.181, male, Linares, 03.04.1942; ZFMK 46.182, male, Linares, 04.04.1942; ZFMK 46.183, male, Linares, 10.04.1942; ZFMK 46.184, female, Linares, 04.04.1942; ZFMK 46.185, female, Linares, 04.04.1942; ZFMK 46.186, female, Linares, 04.04.1942; ZFMK 187, female, Linares, 04.04.1942; ZFMK 46.188, female, Linares, 04.04.1942, all leg. H. Grün.

Described from five males and four females; preoccupied by *Turdus hispaniae* Kleinschmidt, 1909. – Dickinson (2003): see following taxon.

Turdus viscivorus jordansi Eck, 1970
Zool Abh Mus Tierk Dresden 30: 135

Holotype: ZFMK 46.179, male, see previous taxon.

Nomen novum for *Turdus viscivorus hispaniae* Jordans, 1950, this taxon being preoccupied by *Turdus hispaniae* Kleinschmidt, 1909. – Dickinson (2003): *Turdus viscivorus viscivorus* Linnaeus, 1758.

MUSCICAPIDAE

Phoenicurus phoenicurus caesitergum Clancey, 1947
Bull Brit Orn Cl 67: 77.

Paralectotype. ZFMK 50.56, female, Northumberland, England, 31.05.1942, leg. Clancey.

Holotype in the Coll. Clancey, RSME, Edinburgh, t. t. Burnley, Lancashire, England. – Dickinson (2003): *Phoenicurus phoenicurus phoenicurus* (Linnaeus, 1758).

Erithacus algeriensis Kleinschmidt, 1904
Orn Monatsber 12: 197.

Lectotype: Coll. Kl. 2921, male, Lambèse, “in the wood”, Algeria, 11.06.1904, leg. Flükiger.

Paralectotypes: Coll. KL. 2922–2924, 3 male, Lambèse, 9.–11.06.1904, leg. Flükiger.

No type defined in the original description; information on type status taken from Catalogue (Kleinschmidt 1935–1943: 73). – Dickinson (2003): *Phoenicurus phoenicurus phoenicurus* (Linnaeus, 1758).

Phoenicurus ochruros aterrimus Jordans, 1923
Falco 19, Sonderheft: 8.

Lectotype: Coll. Kl. 2804, male, Bellas, Portugal, 06.1906.

Paralectotypes: Coll. Kl. 2805, female, Bellas, 06.1906; ZFMK H. II. 6. a'.ß., male, Pinchao bei Aligó, 18.03.1913, leg. Weigold.

No type specimens designated in original description; two specimens in the Kleinschmidt Collection match the date and locality provided in the description; type status designated in Catalogue Kleinschmidt (1935–1943: 72) and also on label in the ZFMK collections. Second paralectotype designated by van den Elzen (1986). – Dickinson (2003): *Phoenicurus ochruros aterrimus*.

Saxicola rubetra hesperophila Clancey, 1949
Limosa 22: 369.

Paralectotypes: ZFMK 50.312–50.315, male, 2 females, female juv., Argyllshire, SW Scotland, 17.07.–18.08.1948, leg. Clancey.

Holotype in the Coll. Clancey, RSME, Edinburgh, t. t. Newton Mearns, E Renfrewshire. Only holotype designated in the original description. Information on paralectotypes derived from ZFMK inventory and labels in the collection; paralectotype status designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Saxicola rubetra* (Linnaeus, 1758).

Saxicola rubetra şengüni Kumerloeve, 1969
Rev Fac Sci Univ Istanbul 34: 277.

Syntypes: ZFMK 68.1873, female, Yüksekova, Turkey, 10.06.1968; ZFMK 68.1874, male, Van-Ermaniz, 23.06.1968; ZFMK 68.1875, male juv., Van-Ermaniz

23.06.1968, leg. Mittendorf, Nos 201, 274, 275. – Dickinson (2003): *Saxicola rubetra* (Linnaeus, 1758).

Saxicola torquata gabrielae Neumann & Paludan, 1937
Orn Monatsber 45: 15.

Lectotype: ZFMK 41.492 male, Olymp, S of Brussa, Asia Minor, 20.07.1934. Paralectotype: ZFMK 41.493, male, Olymp, S of Brussa, Asia Minor, 20.07.1934, both leg. G. Neuhäuser.

Described from a series of nine males, five from “W and C Asia Minor” and four from Rhodos. Two of our specimens meet the locality and date of the defined “type” of the original description, the specimen ZFMK 41.492 bears a label with “type” in an old handwriting. The second specimen is chosen as a paralectotype. The whereabouts of the remaining specimens are not known. – Dickinson (2003): *Saxicola torquata rubicola* (Linnaeus, 1766).

Saxicola transfuga Kleinschmidt, 1936
Nova Acta Leopold, N.F. 4: 377.

Lectotype: Coll. Kl. 2547, male, Schuster, W Iran, 22.03.1904.

Paralectotype: Coll. Kl. 2548, female, Mamed-abad, E Iran, 19.07.1901.

Neither in the original description nor in the Catalogue (Kleinschmidt 1935–1943: 66) type specimens were designated. Type status was taken from the handwritten label; lectotype and paralectotype designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Oenanthe pleschanka transfuga*, but see Haffer (1977: 37).

Saxicola Meridionalis reiseri Kleinschmidt, 1943
Katalog meiner ornithologischen Sammlung: 65 and 69.

Lectotype: Coll. Kl. 2534, male, Mosco, Bosnia - Herzegovina, 23.04.1893.

Paralectotype: Coll. Kl. 2535, female, Trebinje, Bosnia - Herzegovina, 24.04.1893.

Very poor description, but illustrated on page 70; no types designated in Catalogue (Kleinschmidt 1935–1943: 65); lectotype and paralectotype designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Oenanthe hispanica hispanica* (Linnaeus, 1758).

Saxicola palearctica Kleinschmidt, 1920
Falco 17: 3.

Lectotype: Coll. Kl. 2490, male, Sirax, Trans-Caspia, 20.03.1905, per Schlüter.

Kleinschmidt (1935–1943: 65) considers specimens collected at the same time and the same place (Coll. Kl. 2491–2495, 2 males, male juv., 2 females, Sirax, 20.–26.03.1905) as questionably similar to the type. No type specimen designated in the poor original description; lectotype designated in Catalogue (Kleinschmidt 1935–1943: 65). – Dickinson (2003): *Oenanthe oenanthe libanotica* (Hemprich & Ehrenberg, 1833).

Saxicola Borealis obtusa Kleinschmidt, 1943
Katalog meiner ornithologischen Sammlung: 64.

Lectotype: Coll. Kl. 2466, male, Gennargentu, Sardinia, 28.06.1907, leg. Meloni.

Paralectotypes: Coll. Kl. 2467–2475, 2 males, 4 females, 3 imm., Gennargentu, 26.–31.07.1903, leg. Meloni.

Very poor description, no types designated, information taken from label in Kleinschmidt Collection; lecto- and paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Oenanthe oenanthe libanotica* (Hemprich & Ehrenberg, 1833).

Saxicola Borealis exilipes Kleinschmidt, 1943
Katalog meiner ornithologischen Sammlung: 65.

Lectotype: Coll. Kl. 2485, male ad., Sarpa/ Wolga, Russia, 05.1909.

Paralectotype: Coll. Kl. 2486, o ad., Sarpa/ Wolga, 05.1909.

Very poor description, no types designated, information taken from label in Kleinschmidt Collection; lecto- and paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Oenanthe oenanthe oenanthe* (Linnaeus, 1758).

Oenanthe tractrac hoeschi Niethammer, 1955
Bonn zool Beitr 6: 188.

Paratype: ZFMK 66.899, female, Kaokoveld w Orupembe, Namibia, 27.06.1952, leg. Hoesch.

Holotype: UMB, Bremen No 19.905, male, Kaokoveld w Orupembe, Namibia, 28.06.1952, leg Hoesch.

Described from these two specimens. – Dickinson (2003): *Cercomale tractrac hoeschi* (Niethammer, 1955).

Cercomela familiaris hoeschi Niethammer, 1955
Bonn zool Beitr 6: 189.

Paratype: ZFMK 39.458, male, Brandberg, Namibia, 17.09.1938, leg. G. Niethammer No 94.

Holotype at the UMB (Bremen) No 19.907, t.t. Otju, Kaokoveld. Preoccupied by *Oenanthe tractrac hoeschi* Niethammer, 1955, because the species *tractrac* has to be placed within *Cercomela*, if this is accepted as separate genus. Niethammer treated this form as synonym of *Oenanthe familiaris angolensis* later. – Dickinson (2003): *Oenanthe familiaris angolensis* Lynes, 1926.

Erithacus superbus Koenig, 1889
J Orn 37: 183.

Syntypes: ZFMK H.II.4.a³.β. male, Icod el Alto, Tenerife, Canary Islands, 17.02. 1889; ZFMK H.II.4.a³.δ., male, Villa Orotava, Tenerife, Canary Islands, 06.04.1889 – **specimen lost**, all leg. Koenig.

Paralectotypes: ZFMK H.II.4.a³.α., male, Villa Orotava, 22.01.1889; ZFMK H.II.4.a³.γ., male, Villa Orotava, 06.04.1889; ZFMK H.II.4.a³.ε., female, Icod el Alto, 17.02.1889; ZFMK H.II.4.a³.ζ., o, Icod el Alto, 17.02.1889; ZFMK H.II.4.a³.η., female, Pinar, 11.04.1889; ZFMK H.II.4.a³.θ., o, Pinar, 13.04.1889; ZFMK H.II.4.a³.ι., female, 16.04.1889, all leg. Koenig.

In the original description no type specimen was defined; in the inventory register β. and δ. are designated as type specimens. The latter is currently untraceable in the collection, supposedly also integrated in the permanent exhibition. All type specimens of Koenig were mounted in the first place and have been prepared as skins only after 1943. Specimens numbered α, γ and ε are registered as “cotypes” in the inventory (marked by crosses), but 5 more specimens from the same localities and time period are also registered. They have been chosen as paralectotypes by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Erithacus rubecula superbus*.

Erithacus rubecula hispaniae Jordans, 1950
Syll Biol, Festschr Kleinschmidt: 174.

Holotype: ZFMK 46.232, male, Linares de Riofrio, Salamanca, Spain, 20.04.1943, leg. H. Grün.

Paralectotypes: ZFMK 46.233, female, Linares de Riofrio, 28.04.1942; ZFMK 46. 234, male, Linares, 12.04.1942; ZFMK 46.235, male, Linares, 30.04.1942, all leg. H. Grün.

Described from three males and one female collected “end of April, beginning of May”; only holotype designated in original description. Paralectotypes designated by Rheinwald & van den Elzen (1984), and information on status taken from inventory of ZFMK bird collection. – Dickinson (2003): *Erithacus rubecula rubecula* (Linnaeus, 1758).

Erithacus Dandalus sardus Kleinschmidt, 1906
Falco 2: 70.

Lectotype: Coll. Kl. 2985, male, Pizzo Tricoli, Ogliastro, Sardinia, 26.05.1905.

Paralectotypes: Coll. Kl. 2986–2991, 5 males, o, Pizzo Tricoli and Lanusei, Ogliastro, 30.08.1904, 04.06.1905, 02.–03.09.1906.

No types defined in the original description; lectotype designated by Kleinschmidt in his Catalogue (1935–1943: 75); paralectotypes designated by Rheinwald & van den Elzen (1984). One para(lecto)type in the SNS, Dresden (Eck & Quaisser 2004). – Dickinson (2003): *Erithacus rubecula sardus*.

Erithacus rubecula monnardi Kleinschmidt, 1916
Falco 12: 14.

Lectotype: Coll. Kl. 2981, o ad., La Tourauderie, Dept. Ardennes, France, 24.02.1916, leg. Bacmeister.

Paralectotypes: Coll. Kl. 2982–2983, 2 o, La Tourauderie, 24.02. and 17.03.1916, leg. Bacmeister.

Originally described from three specimens, lectotype designated in Catalogue (Kleinschmidt 1935–1943: 75), also paralectotypes. – Dickinson (2003): *Erithacus rubecula rubecula* (Linnaeus, 1758)

Luscinia megarhynchos luscinoides Jordans, 1923
Falco 19, Sonderheft: 3.

Holotype: ZFMK H.II.2.a³.α., male, Arta, Majorca, 22.04.1913, leg. A. von Jordans No 839.

Paralectotypes: ZFMK H.II.2.a³.β., male, Santany, 09.05.1913; ZFMK H.II.2.a³.γ., male, Arta, Majorca,

26.04.1913; ZFMK H.II.2.a³.δ., male, Arta, Majorca, 26.04.1913; ZFMK H.II.2.a³.ε., female, Valldemosa, 19.05.1913; ZFMK H.II.2.a³.ζ., male, Santany, 09.05.1913; ZFMK H.II.2.a³.η., male, Arta, Majorca, 25.04.1913; ZFMK H.II.2.a³.θ., male, Santany, 01.05.1913; ZFMK H.II.2.a³.ι., male, Santany, 01.05.1913; ZFMK H.II.2.a³.κ., male, Santany, 09.05.1913; ZFMK H.II.2.a³.μ., female, Alcudia, 06.06.1921; ZFMK H.II.2.a³.ν., male, Alcudia, 08.05.1921; ZFMK H.II.2.a³.ξ., male, Albufera, 16.05.1921; ZFMK H.II.2.a³.π., male, Alcudia, 20.05.1921; ZFMK H.II.2.a³.ρ., male, Alcudia, 14.06.1921; ZFMK H.II.2.a³.σ., male, Alcudia, 06.05.1921; ZFMK H.II.2.a³.τ., male, Alcudia, 06.05.1921, all leg. A. von Jordans.

Described from twenty-six specimens; only holotype specimen designated, no paratypes defined. Of the original series seventeen still exist in the ZFMK collection, two more specimens were exchanged with the AMNH, New York, and Tring, UK; whereabouts of others unknown. Paralectotypes designated by Rheinwald & van den Elzen (1984) based on specimens traced in the ZFMK inventory. – Dickinson (2003): *Luscinia megarhynchos megarhynchos* C.L. Brehm, 1831.

Luscinia megarhynchos caligiformis Clancey & Jordans, 1950

Auk 67: 361.

Paratype: ZFMK 50.316, male ad., Martlesham, Woodbridge, E Suffolk, England, 11.06.1941, leg. Clancey.

Holotype at the RSME, Edinburgh, t. t. as above. – Dickinson (2003): *Luscinia megarhynchos megarhynchos* C.L. Brehm, 1831.

Luscinia svecica weigoldi Kleinschmidt, 1923

Abh Ber Mus Tierk Dresden 16: 43.

Paralectotype: Coll. Kl. 3092, male, Bago, 90 km n of Jehol, NO Tschili, 13.05.1916, leg. Weigold.

Holo(?)type C 23 427 at the SNS, Dresden, lost since 1945, other type material still exists (Eck & Quaiser 2004).

Described from a series of eight males and four females. No types designated in the original description, three more paratype specimens in the SNS, Dresden. ZFMK specimen designated as paratype by Kleinschmidt (1935–1943: 77) in his Catalogue. – Dickinson (2003): *Luscinia svecica svecica* (Linnaeus, 1758).

Erithacus gaetkei Kleinschmidt, 1904
J Ornithol 52: 302.

Lectotype: Coll. Kl. 3045, male, Heligoland, “spring” 1896, leg. Kemp, per de Maes.

Paralectotypes: Coll. Kl. 3046–3051, 2 males, male juv., female, Heligoland, “spring” and “autumn” 1896, leg. Kemp, per de Maes.

No type specimen defined in the description; the „type specimen“ designated in the Catalogue (Kleinschmidt 1935–1943: 76). There is also information given in a footnote that a larger series existed for the original description. – Dickinson (2003): *Luscinia svecica svecica* (Linnaeus, 1758).

Erithacus volgae Kleinschmidt, 1907

Falco 3: 47.

Holotype: Coll. Kl. 3097, male, Sarpa a.d. Wolga, Russia, 05.1906, per Schlüter.

No further material existed for the brief description. – Dickinson (2003): *Luscinia svecica volgae*.

Muscicapa striata tyrrhenica Schiebel, 1910

Orn Jb 21: 102.

Syntype: ZFMK 57.1307, female, Aitone near Evisa, Corsica, 19.05.1910, leg. Schiebel.

Paralectotype: ZFMK 57.1306, female, Aitone, 26.05.1910, leg. Schiebel.

The other syntype, the mated male, is housed at the NHMW, Vienna (NMW 70.694, male, Aitone near Evisa, Corsica, 19.05.1910, leg. Schiebel), also some other paralectotypes; see Schifter & van den Elzen (1986). – Dickinson (2003): *Muscicapa striata tyrrhenica*.

Muscicapa striata cretica Schiebel, 1925

J Ornithol 58: 659.

Syntypes: ZFMK 57.1016, male, Kalessor near Candia, Crete, 07.06.1925, and ZFMK 57.1013, female, Canea, Crete, 15.05.1925, both leg. Schiebel.

A presumed paralectotype is ZFMK 57.1015, male, Homalo, Crete, 04.05.1925; see also Schifter & van den Elzen (1986). – Dickinson (2003): *Muscicapa striata neumanni* Poche, 1904.

Muscicapa striata balearica Jordans, 1913
Falco 9: 43.

Lectotype: ZFMK G.II.1.a³.α., male, S Valldemosa, Mallorca, 19.05.1913, leg. A. von Jordans No 654.

Paralectotype: ZFMK G.II.1.a³.χ., female, Santany, Mallorca, 02.05.1913, leg. A. von Jordans.

In the original description no type specimen is designated; information on type status is taken from collection labels and inventory of ZFMK collection (Rheinwald & van den Elzen 1984). There fourteen specimens (including the type specimen) are listed, but not defined as type material: ZFMK G.II.1.a³.β.–ζ., θ–ξ., four males, seven females, Valldemosa, Sta. Ponsa, Santany, Arta, Isla Dragonera, 16.04.–19.05.1913, all leg. A. von Jordans. Three specimens were exchanged with the bird collections in Warsaw, Berlin and Dresden. – Dickinson (2003): *Muscicapa striata balearica*.

Bradornis pallidus aquaemontis Stresemann, 1937
Orn Monatsber 45: 148.

Paralectotype: ZFMK 39.972, male, Waterberg-Plateau, Namibia, 10.02.1937, leg. Hoesch No 734.

Holotype at the MfN, Berlin No 37.20, leg. Hoesch No 783.

Described from three specimens, only holotype designated; whereabouts of third specimen unknown. – Dickinson (2003): *Malaenornis pallidus aquaemontis* (Stresemann, 1937).

CINCLIDAE

Cinclus aquaticus tschusii Kleinschmidt & Hilgert, 1907
Falco 3: 104.

Lectotype: Coll. Kl. 3463, male, Neustadt a.d. Wied, Germany, 09.04.1896, leg. Sch. I (Schneider the Elder?)

Paralectotype: Coll. Kl. 3464, o, Gräfenbach, 09.1906.

No type defined in the original description; “Typus” and “Cotypus” designated by Kleinschmidt in his Catalogue (1935–1943: 85). – Dickinson (2003): *Cinclus cinclus aquaticus* Bechstein, 1803.

Cinclus cinclus szetschwanensis Meise, 1928
Orn Monatsber 36: 138.

Paratype: Coll. Kl. 3484, male, Taukwan/ Min, Szechuan, 15.01.1915, leg. Weigold; second paratype at the MfN, Berlin, Nr. 25.1158, Tsaupo near Wönnutschwan, 31.12.1914, leg. Weigold.

Holotype at the MfN, Berlin, No 25.1157, Taukwan/ Min, Szechuan, 15.01.1915, leg. Weigold. – Dickinson (2003): *Cinclus cinclus przewalskii* Bianchi, 1900.

Cinclus cinclus amphitryon Neumann & Paludan, 1937
Orn Monatsber 45: 16.

Lectotype: ZFMK 41.434, male, Varsambek, Lasistan, Turkey, 26.08.1934, leg. Neuhäuser.

Paralectotypes: ZFMK 41.435, male, Varsambek, Lasistan, Turkey, 26.08.1934; ZFMK 41.436, male, Varsambek, 26.08.1934; ZFMK 41.437, male juv., Varsambek, 26.08.1934; ZFMK 41.438, male juv., Varsambek, 28.08.1934; ZFMK 41.439, male, Varsambek, 27.08.1934; ZFMK 41.440, male, Varsambek, 25.08.1934; ZFMK 41.441, male, Varsambek, 26.08.1934, all leg. Neuhäuser.

Described from six adult males, one juv. male, two females, ZFMK 41.442 exchanged with the AMNH, New York. Three specimens with the same date and finding locality match the “type” as presented in the original description. Information on type status taken from handwritten label in collection (Rheinwald & van den Elzen 1984). – Dickinson (2003): *Cinclus cinclus caucasicus* Madarász, 1903.

NECTARINIIDAE

Anthreptes rectirostris amadoni Eisentraut, 1973
Bonn zool Monogr 3: 248.

Holotype: ZFMK 68.625, male ad., Dikuma, Rumpi Hills, W Cameroon, 04.03.1967, leg. Eisentraut No 1188.

Only holotype designated in the original description, no details on material examined included; further three adult males, two juvenile males, one female, with the same data, are potential paratypes. – Dickinson (2003): *Anthreptes rectirostris tephrolaemus* (Jardin & Selby, 1851).

Nectarinia preussi parvirostris Eisentraut, 1965
J Ornithol 106: 219.

Holotype: ZFMK 65.6, male ad., Refugio at the peak of St. Isabel, Fernando Po (Bioko), 18.12.1962, leg. Eisentraut No 664.

Paralectotypes: ZFMK 63.949–63.959, 11 males, Moca, 10., 11. 1962; ZFMK 63.960–63.962, 2 males, female, Refugium, 01.1963 and 12. 1962; ZFMK 63.963–63.968, 7 females, Moca, 10., 11. 1962, 02., 03. 1963.

Described from a series of nineteen males and eleven females; Eisentraut collected fourteen males and seven females. No paratypes were defined in the original description; paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Cinnyris reichenowi preussi* Reichenow, 1892.

Nectarinia minulla amadoni Eisentraut, 1965
J Ornithol 106: 218.

Holotype: ZFMK 65.7, male ad., San Carlos, Fernando Po, 02.10.1962, leg. Eisentraut No 153.

Paralectotypes: ZFMK 63.1079–63.1082, 2 males, 2 females, San Carlos, 09., 10., 11. 1962 and ZFMK 63.1083, male, Conception 03.1963, all leg. Eisentraut.

Described from six males and three females. Only holotype, no paratypes designated in original description; paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Cinnyris minullus amadoni*.

PASSERIDAE

Passer montanus Hispaniae Jordans, 1933
Anz Orn Ges Bayern 2: 253.

Holotype: ZFMK I.II.3.f⁴.β., male, Oropesa, E Pyrenees, Spain, 28.10.1931, leg. Grün.

Paralectotypes: ZFMK I.II.3.f⁴.γ. to φ., 10 males, 9 females, Oropesa, 08.–11. 1931 and 02., 10.–11. 1932, all leg. Grün.

Described from twenty specimens, only type specimen designated in original description; paralectotypes designated by Rheinwald & van den Elzen (1984) as nineteen topotypical specimens were found in the collection. – Dickinson (2003): *Passer montanus montanus* (Linnaeus, 1758).

Passer catellatus Kleinschmidt, 1935
Falco Skizzen 2: 1.

Lectotype: Coll. Kl. 185, male, Sussex, England, 12. 1888, leg. Rosenberg, per Brazenor Bros.

Paralectotypes: Coll. Kl. 186, male, Sussex, 05.12.1896, leg. Rosenberg; Coll. Kl. 187 male, Tring, 25.12.1933; Coll. Kl. 188, female, Tring, 26.12.1933, both leg. Goodson.

Described from four specimens, no type designated in the description, lectotype designated in his Catalogue (Kleinschmidt 1935–1943: 7), paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Passer montanus catellatus*.

Passer hostilis Kleinschmidt, 1915
Falco 11: 19.

Lectotype: Coll. Kl. 30, male, Tring, Zoological Garden, England, 09.08.1897, leg. Kleinschmidt.

Paralectotypes: Coll. Kl. 28–29, 2 males, Tring, 07. and 09.08.1897, leg. Kleinschmidt.

No type specimens designated in the original description, only type locality. Coll. Kl. 30 designated as type specimen in the Catalogue (Kleinschmidt 1935–1943: 2), in the collection No 29 labelled as type. – Dickinson (2003): *Passer domesticus domesticus* (Linnaeus, 1758).

Passer ahasver Kleinschmidt, 1904
Orn Monatsber 12: 7.

Holotype: Coll. Kl. 153, male, Marrakesh, S Morocco, 03.12.1899, leg. Floericke.

Description based on one single specimen. – Dickinson (2003): *Passer domesticus tingitanus* Loche, 1867.

Passer niger Radde, 1899

Die Sammlungen des Kaukasischen Museums, 1: 246 and 260.

Paralectotype: Coll. Kl. 133, male, Kumbaschinsk, 20 km N of Lenkoran, Caucasus, 08.04.1896, leg. Floericke.

According to Kleinschmidt correct name of *Passer domesticus hyrcanus* Zarudny, 1923; paralectotype designated by Kleinschmidt (1935–1943: 5). – Dickinson (2003): *Passer domesticus hyrcanus* Zarudny & Kudashev, 1916.

Passer domesticus mayaudi Kumerloeve, 1969
Rev Fac Sci Univ Istanbul 34: 258.

Holotype: ZFMK 68.2004, male, Van, Turkey, 30.06.1968, leg. Mittendorf No 336.

Paralectotypes: ZFMK 68.1989, male, Van, 30.05.1968; ZFMK 68.1994, male, Van, 30.05.1968; ZFMK 68.1995, male, Van, 19.06.1968; ZFMK 68.1996, male, Van, 19.06.1968; ZFMK 68.1997, male, Van, 19.06.1968; ZFMK 68.1998, male, Van, 19.06.1968; ZFMK 68.1999, male, Van, 19.06.1968; ZFMK 68.2000, male, Van, 20.06.1968; ZFMK 68.2001, male, Van, 22.06.1968; ZFMK 68.2002, male, Van, 27.06.1968; ZFMK 68.2003, male, Van, 27.06.1968; ZFMK 68.2004, male, Van, 30.06.1968; ZFMK 68.2005, female, Van, 19.06.1968; ZFMK 68.2006, female, Van, 27.06.1968; all leg Mittendorf, collection Kumerloeve.

Described from a series of twelve males and two females from Van; only holotype designated in original description; paralectotypes designated by Rheinwald & van den Elzen (1984), here restricted to specimens collected at the type locality. – Dickinson (2003): *Passer domesticus biblicus* Hartert, 1904

Passer domesticus balearoibericus Jordans, 1923
Falco 19, Sonderheft: 4.

Holotype: ZFMK I.II.3.a⁹.ψ., male, Valldemosa, Majorca, 01.05.1921, leg. A. von Jordans No 3060.

Paralectotypes: ZFMK I.II.3.a⁹.α., β., δ.–φ., ω., αα.–εε., 20 males, 6 females, Lluch, Artá, Valldemosa, Sta. Ponsa, Esporlas, Alcudia, 03.–05. 1913 and 03.–06.1921.

Described from a large series (thirty-seven specimens), only holotype designated in original description, paralectotypes designated by Rheinwald & van den Elzen (1984); from the series, twenty-six specimens are still in the ZFMK collection. – Dickinson (2003): *Passer domesticus balearoibericus*.

Passer flückigeri Kleinschmidt, 1904
Orn Monatsber 12: 7.

Holotype: Coll. Kl. 169, male, Touggourt, Algeria, 16.04.1903, leg. Flückiger.

Paratype: Coll. Kl. 170, male, Oasis Touggourt, 16.04.1903, leg. Flückiger.

Bonn zoological Bulletin 59: 29–77

Description based on larger series, one paratype in the SNS, Dresden (Eck & Quaiser 2004). According to Meise (1936) the status of the taxon as a stabilized hybrid population of *Passer domesticus* x *Passer hispanoliensis*. Not in Dickinson (2003).

Passer italiae schiebeli Rokitansky, 1934
Falco 30: 7.

Holotype: ZFMK 57.765, male, Canaea, Crete, 11.04.1925, leg. Schiebel.

Paratypes: ZFMK 57.774, male, Canaea, Crete, 26.04.1925, “Cotype I”; ZFMK 57.800, male, Suda, Crete, 27.04.1925, “Cotype II”, all leg. Schiebel.

Rokitansky described the taxon from a large series of fifty males and twenty females in the collection of the ZFMK. The paratypes are labelled as cotypes. – Dickinson (2003): *Passer domesticus domesticus* (Linnaeus, 1758); (but see Schifter & van den Elzen 1986, Stephan 2000).

Passer griseus laeneni Niethammer, 1955
Bonn zool Beitr 6: 75.

Holotype: ZFMK 54.331, male, Bol, E bank of Lake Chad, 01.04.1954, leg. Laenen.

Paralectotypes: ZFMK 54.332, female, Bol, 28.03.1954; ZFMK 54.466–54.467, female, male, 8. and 15. 04.1954; ZFMK 54.1243, male, Archei/ Ennedi, Chad, 05.04.1954 and ZFMK 80.326–80.328, 3 male, Fada/ Ennedi, 19. and 20.04.1954, leg. Laenen.

Described from a series of eleven males and seven females. Only the holotype was designated in the original description. Paralectotypes designated by Rheinwald & van den Elzen (1984). Whereabouts of other specimens are unknown. – Dickinson (2003): *Passer griseus laeneni*.

Petronia petronia balearica Jordans, 1923
Falco 19, Sonderheft: 4.

Holotype: ZFMK I.II.4.a⁶.θ., male, Lluch, Majorca, 21.04.1921, leg. A. von Jordans, No 3040.

Paralectotypes: ZFMK I.II.4.a⁶.α., female, Santany, 05.05.1913; ZFMK I.II.4.a⁶.β., female, Valldemosa, 30.04.1921; ZFMK I.II.4.a⁶.γ., female, Lluch, Majorca, 22.04.1921; ZFMK I.II.4.a⁶.ε., male, Artá, 04.04.1921; ZFMK I.II.4.a⁶.ζ., male, Lluch, Majorca, 22.04.1921; η., female, Valldemosa, 02.05.1921; ZFMK I.II.4.a⁶.κ., male, Valldemosa, 29.04.1921, all leg. V. Jordans.

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Described from a series of ten specimens; only holotype designated in original description, paralectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Petronia petronia petronia* (Linnaeus, 1766).

PLOCEIDAE

Malimbus ballmanni Wolters, 1974
Bonn zool Beitr 25: 290.

Holotype: ZFMK 72.799, o, NW of Tai, between Cavalry River and Keibli, SW Ivory Coast, 1972, leg. Ballmann.

The only specimen; further sightings in Sierra Leone, Guinea and Liberia; synonym is *Ploceus* (*Malimbus*) *goloensis* Field, 1979 (*Malimbus* 1: 2). Figured in Rheinwald & van den Elzen (1984: 113). – Dickinson (2003): *Malimbus ballmanni*.

ESTRILDIDAE

Estrilda nonnula eisentrauti Wolters, 1964
J Ornithol 105: 355.

Holotype: ZFMK 61.1407, male, Camp VI, Isobi, Cameroon Mountains, Cameroon, 10.03.1958, leg. Eisentraut No 886.

Paralectotypes: ZFMK 61.1398, female, Isobi, 05.02.1958; ZFMK 61.1400, female, Buea, 01.01.1958; ZFMK 61.1411, male, Camp II, Cameroon Mountains, 26.11.1958, leg. Eisentraut.

Described from a large series of thirty-four specimens; in the original description only the holotype is specified; paralectotypes designated by Rheinwald & van den Elzen (1984); the other specimens are presumably housed at the SNMS, Stuttgart. – Dickinson (2003): *Estrilda nonnula eisentrauti*.

Hypargos niveoguttatus baddeleyi Wolters, 1972
Bonn zool Beitr 23: 89.

Holotype: ZFMK 68.1297, female, Nacala, N Mozambique, 12. 1967, leg. Baddeley.

Paratypes: ZFMK 68.1294–68.1296, 3 males, Nacala, 12. 1967, leg. Baddeley.

Described from eight males and two females (incl. type specimen); only the Nacala specimens are housed at the ZFMK, the Mikinandi specimens may be stored in the DMD, Durban. – Dickinson (2003): *Hypargos niveoguttatus macrospilotus* Mearns, 1913.

Amandava subflava niethammeri Wolters, 1969
Bonn zool Beitr 20: 66.

Holotype: ZFMK 66.618, male, Sá da Bandeira, Huila, Angola, 20.03.1966, leg. Ferreira.

Paralectotype: ZFMK 66.619, female, Sá da Bandeira, 20.03.1966, leg. Ferreira.

Described from a larger series with material from several museum collections; only holotype designated in original description; paralectotype designated by Rheinwald & van den Elzen (1984), information taken from handwritten label in ZFMK collection and inventory. – Dickinson (2003): *Amandava subflava niethammeri*.

VIDUIDAE

Hypochera lorenzi Nicolai, 1972
J Ornithol 113: 236.

Holotype: ZFMK 79.997, female, Emene near Enugu, E Nigeria, 26.11.1971; in captivity at the Max-Planck-Institute for Behavioral Physiology, Seewiesen, until 19.04.1974, leg. Nicolai.

Described from only this specimen. – Dickinson (2003): *Hypochera wilsoni* (E. Hartert, 1901).

PRUNELLIDAE

Prunella modularis interposita Clancey, 1943
Bull Brit Orn Cl 64: 14.

Paralectotypes: ZFMK 50.7–50.8, 2 females, Dornoch, Sutherlandshire, Scotland, 02.09.1938 and 22.06.1942.

Described from fifteen specimens, only holotype designated in the original description; housed in Coll. Clancey, RSM, Edinburgh, t.t. as paratypes. The paralectotypes were designated by Rheinwald & van den Elzen (1984) from handwritten information on label and ZFMK inventory. – Dickinson (2003): *Prunella modularis hebridum* Meinertzhagen, 1934.

MOTACILLIDAE

Motacilla flava raddei Härms, 1909
Orn Monatsber 17: 2.

Holotype: ZFMK H.IV.1^b.b¹².γ., male, Aschabad, Trans-Caspia, 15.05. (= 28.05. Gregorian Calendar), no year, leg. Tancré, ex. Coll. Härms.

Paralectotypes: ZFMK H.IV.1^b.b¹².α., β., δ., 3 males, Aschabad and Sarepta, S Russia, 04., 05., no year, per Tancré's collector.

Described from a series, but only the type was defined and designated in the original description. Paralectotypes designated by Rheinwald & van den Elzen (1984), information taken from Jordans (1923: 15) and the inventory of the ZFMK bird collection. – Dickinson (2003): *Motacilla flava feldegg* Michahelles, 1830.

Motacilla alba arduenna Kleinschmidt, 1916
Falco 12: 14.

Lectotypes: Coll. Kl. 1775, male, La Tourauderie, Ardenes, France, 07.03.1916; Coll. Kl. 1776, male, La Tourauderie, 07.03.1916; Coll. Kl. 1777, male, La Tourauderie, 03.03.1916, all leg. Bacmeister.

No types were designated in the short original description; series designated as lectotypes by Kleinschmidt in his Catalogue (1935–1943: 43). – Dickinson (2003): *Motacilla alba alba* Linnaeus, 1758.

Anthus Arboreus schlüteri Kleinschmidt, 1920
Falco 16: 16.

Syntypes: Coll. Kl. 1650–1651, male, female, Naryn, Turkestan, 20.04.1906, Tienschan, 12.05.1908, leg. Schlüter.

No further material existed. – Dickinson (2003): *Anthus trivialis trivialis* (Linnaeus, 1758).

Anthus trivialis salomonseni Clancey, 1950
Dansk Orn Foren Tidsskrift 44: 43.

Paralectotypes: ZFMK 50.281 and 50.282, 2 males, Burnley, Lancashire, SW Scotland, 08. and 15.06.1946, leg. Clancey.

Described from a large series of forty-five specimens from the breeding season; type specimen in the Coll. Clancey, RSME, Edinburgh, t.t. Carmunnock, Lanarkshire. Paralectotypes designated by Rheinwald & van den Elzen (1984). Information on status derived from ZFMK inventory. – Dickinson (2003): *Anthus trivialis trivialis* (Linnaeus, 1758).

Anthus spinoletta hesperianus Clancey, 1942
Bull Brit Orn Cl 62: 57.

Paralectotypes: ZFMK 50.72–50.75, 4 males, Blackwaterfoot, Arran, W Scotland, 15. and 16.08.1940, leg. Clancey.

In the original description only the holotype was designated, no information is given on further material: paralectotypes designated by Rheinwald & van den Elzen (1984), information derived from ZFMK inventory. Type specimen in the Coll. Clancey, RSME, Edinburgh. – Dickinson (2003): *Anthus spinoletta spinoletta* Linnaeus, 1758.

Anthus pratensis whistleri Clancey, 1942
Bull Brit Orn Cl 63: 6.

Paralectotype: ZFMK 50.78, female, Dornoch, Sutherland, N Scotland, 05.09.1938, leg. Clancey.

In the original description only the holotype was designated, no information is given on further material: paralectotypes designated by Rheinwald & van den Elzen (1984), information derived from ZFMK inventory. Three further specimens are registered in the inventory, but not defined as paratypes. Type specimen in Coll. Clancey, RSME, Edinburgh. – Dickinson (2003): *Anthus pratensis whistleri*.

Anthus richardi grotei Niethammer, 1957
J Ornithol 98: 449–450.

Holotype: ZFMK 57.8, male, Onguma, Etosha, Namibia, 18.09.1956, leg. Hoesch No 2682.

Paratypes: ZFMK 57.9 to 57.11, 3 males, Onguma, all 17.09.1956, leg. Hoesch.

Type specimen erroneously indicated as ZFMK 57.7 in the original description. – Dickinson (2003): *Anthus cinnamomeus grotei*.

FRINGILLIDAE

Fringilla coerulescens Koenig, 1889
J Ornithol 37: 183.

Syntypes: ZFMK I.II.1.c². α. and β., 2 males, Palma, Canary Islands, 29.03.1889, leg. Koenig.

No types designated in original description; only two specimens with appropriate data registered in ZFMK collection. – Dickinson (2003): *Fringilla coelebs palmae* Tristram, 1889, because the name is preoccupied by *Fringilla coerulescens* Vieillot, 1817 (= *Estrilda caerulescens*).

Fringilla tintillon madeirensis Koenig, 1890
J Ornithol 38: 271.

Syntypes: ZFMK I.II.1.c.ζ. and η., male, female, Camacho, San Antonio da Serra, Madeira, 23.12.1888, leg. Koenig.

Described from these two specimens. – Dickinson (2003): *Fringilla coelebs maderensis* Sharpe, 1888.

Fringilla coelebs balearica Jordans, 1923
Falco 19, Sonderheft: 4.

Holotype: ZFMK I.II.1.a.ε., male, Lluch, Majorca, 25.03.1913, leg. A. von Jordans No 818.

Paralectotypes: ZFMK I.II.1.a.α.–γ., ζ.–ω., αα.–εε., 20 males, 6 females, Lluch, Valldemosa, Artá, Esporlas, Albufera, Majorca, 03., 05.1913, 03., 05.1921, leg. A. von Jordans.

Originally thirty-nine specimens collected and subspecies described from this series; twenty-nine specimens are registered in the ZFMK inventory, two exchanged. Only type specimen designated by author, paralectotypes designated by Rheinwald & van den Elzen (1984) from information in ZFMK inventory. – Dickinson (2003): *Fringilla coelebs balearica*.

Fringilla coelebs schiebeli Stresemann, 1925
J Orn 58: 658.

Paratype: ZFMK 57.878, male ad., Canea, Crete, 27.03.1925, leg. Schiebel (“Cotype”).

Holotype at the MfN, Berlin (ZMB 75.55) (see Schifter & van den Elzen 1986). – Dickinson (2003): *Fringilla coelebs schiebeli*.

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Fringilla caelebs gengleri Kleinschmidt, 1909
Falco 5: 13.

Holotype: Coll. Kl. 399, male, Hampstead, England, 22.04.1869, ex Mus. Sharpe.

Only type designated in original description and in the Catalogue (Kleinschmidt 1935–1943: 11). – Dickinson (2003): *Fringilla coelebs gengleri*.

Fringilla montifringilla subcuneolata Kleinschmidt, 1909
Falco 5: 14.

Holotype: Coll. Kl. 348, male, without location data, Japan, without date, leg. Kobe.

Paratypes: Coll. Kl. 349–351, as above.

All come from their winter quarters. – Dickinson (2003): *Fringilla montifringilla* Linnaeus, 1758.

Pyrrhula hauseri Kleinschmidt, 1920
Falco 17: 4.

Holotype: Coll. Kl. 862, male, Näfels, canton Glarus, Switzerland, 04.01.1899, leg. Hauser.

The taxon was obviously described from one single specimen only. – Dickinson (2003) presumably: *Pyrrhula pyrrhula europaea* Vieillot, 1816.

Pyrrhula pyrrhula wardlawi Clancey, 1947
Bull Brit Orn Cl 67: 76.

Paralectotype: ZFMK 50.100, male, Pertshire, Scotland, 14.06.1946, leg. Plowden-Wardlaw.

Holotype in Coll. Clancey, RSME, Edinburgh; t. t. Kinloch Rannoch, Pertshire, 02.06.1946.

Described from a series of fourteen males, ten females and two juveniles. Only type designated in original description, paralectotype designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Pyrrhula pyrrhula pileata* W. MacGillivray, 1837.

Pyrrhula pyrrhula paphlagoniae Roselaar, 1995
Songbirds of Turkey, Pica Press: 24–25.

Holotype: ZFMK 39.177, male, Karadere near Bolu, Black Sea Coastlands, Turkey, 25.09.1934, leg. H. Rössner.

A series of nine specimens was considered. The type specimen is illustrated in Kirwan (2006: plates 7–8). – Dickinson (2003): *Pyrrhula pyrrhula paphlagoniae*.

Chloris sinica tschiliensis Jacobi, 1923
Abhandl Ber Mus Tierk Dresden 16: 25.

Syntype: Coll. Kl. 506, female juv., Beijing, China, 26.06.1916, leg. Weigold, per Stötzner.

The subspecies was described from a series of six males, five females and the juvenile. The whereabouts of the other specimens are unknown, other syntypes apparently not in the SNS, Dresden, as given in Rheinwald & van den Elzen (1984), see Eck & Quaiser (2004).

Chloris chloris mallorcae Jordans, 1923
Falco 19, Sonderheft: 3.

Holotype: ZFMK I.II.10.a⁵.o., male, Alcudia, Majorca, 14.05.1921, leg. A. von Jordans No. 3113.

Paralectotypes: ZFMK I.II.10.a⁵.α.–η., ι.–ξ., π.–υ., and χ., 15 males, 4 females, Santany, Alcudia, Artá, Esporlas, Andraitx, Valldemosa, Majorca, Cabrera, Balearic Islands, 03.–05.1913, 05., 06. 1921, leg. A. von Jordans.

Described from a large series of twenty-seven males and five females; only the holotype was designated in the original description, paralectotypes designated by Rheinwald & van den Elzen (1984). Only twenty-two specimens (including the holotype) are found in the ZFMK collection, two further were exchanged with the MfN, Berlin and the AMNH, New York. The whereabouts of the remaining specimens are unknown. – Dickinson (2003) presumably: *Carduelis chloris aurantiiventris* (Cabanis, 1851),

Chloris chloris harrisoni Clancey, 1940
Ibis Ser. XIV, 3: 92.

Paralectotype: ZFMK 50.90, male, Renfrewshire, Scotland, 12.12.1937, leg. Clancey.

Holotype in Coll. Clancey, RSME, Edinburgh; Thorntonhall, Lanarkshire, Scotland, 03.11.1937.

Bonn zoological Bulletin 59: 29–77

Described from a series of eighteen specimens; only the holotype was designated by the author, paralectotype designated by Rheinwald & van den Elzen (1984), information from ZFMK inventory and handwriting on label. – Dickinson (2003): *Carduelis chloris harrisoni*.

Chloris chloris restricta Clancey, 1943
Bull Brit Orn Cl 63: 65.

Paralectotype: ZFMK 50.93, male, Wiltshire, England, 12.12.1942, leg. Clancey.

Described from a series of thirty specimens, only holotype designated in the original description; paralectotype designated by Rheinwald & van den Elzen (1984), information taken from inventory. Type specimen in Coll. Clancey, RSME, Edinburgh. – Dickinson (2003): *Carduelis chloris harrisoni* (Clancey, 1940).

Chloris chloris meridionalis Härms, 1910
Orn Monatsber 18: 121.

Syntypes: ZFMK I.II.10.a.ξξ., female, Colentina, Romania, 18.03.1904; ZFMK I.II.10.a.oo., male, Colentina, 18.03.1904; ZFMK I.II.10.a.ππ., female, Fundeni, 05.03.1905; ZFMK I.II.10.a.ςς., male, Colentina, 01.03.1906; ZFMK I.II.10.a.σσ., male, Pantelimon, 13.02.1907, Coll. Härms No 1218–1222, Coll. A. von Jordans No 1843–47. – Dickinson (2003): *Carduelis chloris muehleii* Parrot, 1905.

Carduelis rhenanus Kleinschmidt, 1936
Katalog meiner ornithologischen Sammlung: 14.

Holotype: Coll.Kl. 514, o, Kornsand/ Rhine, Germany, 03.05. 887.

Paratype: Coll. Erlanger 743, female, Rheinhessen, N of Ingelheim, 15.05.1899.

Paratype probably at the SNS, Frankfurt/Main. – Dickinson (2003): *Carduelis carduelis carduelis* (Linnaeus, 1758).

Carduelis carduelis schiebeli Jordans & Steinbacher, 1943
Senckenbergiana 26: 75.

Holotype: ZFMK 46.22, female, Suda Bay near Kanea, Crete, 15.03.1925, leg. Schiebel.

Paralectotypes: ZFMK 57.1027–57.1033, 5 males, 2 females, Suda Bay, Topelia, lake of Kurna, 02. and 04.1925, all leg. Schiebel.

Described from a series of five males and three females; only holotype defined by the authors. The paralectotypes were designated by Rheinwald & van den Elzen (1984). – (Dickinson 2003): *Carduelis carduelis balcanica* Sachtleben, 1919.

Carduelis carduelis propeparva Jordans, 1923
Falco 19, Sonderheft: 4.

Holotype: ZFMK I.II.14.a⁸.σ., male, Valldemosa, Majorca, 03.05.1921, leg. A. von Jordans No 3189.

Paralectotypes: ZFMK I.II.14.a⁸.α.–δ., ζ.–χ., ο., π., τ.–ω., αα. and ββ., 10 males, 10 females, Valldemosa, Lluch, Esporlas, Santany, Alcudia, Cap de Pinar, Albufera, Palma, 03.–05.1913 and 03.–05.1921, leg. A. von Jordans.

The subspecies was described from a large series of forty-four specimens. In the original description only the holotype was designated. Paralectotypes were designated by Rheinwald & van den Elzen (1984) based upon twenty-six specimens registered in the inventory of the ZFMK bird collection; five specimens exchanged with the AMNH, New York and Mayaud. – Dickinson (2003): *Carduelis carduelis parva* Tschusi, 1901.

Loxia Flavirostris parallelicolor Kleinschmidt, 1921
Berajah, Loxia Flavirostris: 1.

Lectotype: Coll. Kl. 730, male, Harwich, England, 21.01.1881, leg. Burton.

Paralectotype: Coll. Kl. 731, male, Rottingdean, Sussex, England, 10.11.1896, leg. Brazenor Bros.

No types designated in the original description, designated subsequently by Kleinschmidt in his Catalogue (Kleinschmidt 1935–1943: 19). – Dickinson (2003): *Carduelis flavirostris pipilans* (Latham, 1787).

Acanthis flavirostris miniakensis Jacobi, 1923
Abhandl Ber Zool Mus Dresden 16: 25.

Syntype: Coll. Kl. 733, male, Tschuwo, Bameh, Szechwan, 11.11.1915, leg. Weigold per Stötzner No XII.235.

Described from a series of seven males, one male (misspelling for female?) and two pulli. Further syntypes at

the SNS, Dresden, (see Eck & Quaissser, 2004). – Dickinson (2003): *Carduelis flavirostris miniakensis*.

Acanthis cannabina autochthona Clancey, 1946
Bull Brit Orn Cl 66: 84.

Paralectotypes: ZFMK 50.86–50.87, 2 males, Lanarkshire, SW Scotland, 09.11.1935; 13.03.1937.

Described from a series of five males, two females and two juveniles; only holotype designated by the author; paralectotypes designated by Rheinwald & van den Elzen (1984) from information in inventory and handwritten label. Holotype (and other specimens?) in the Clancey Coll., RSME, Edinburgh. – Dickinson (2003): *Carduelis cannabina autochthona*.

Acanthis cannabina obscura Jordans, 1923
Orn Monatsber 31: 13.

Paralectotype: ZFMK I.II.16.a⁵.α., female, Oporto, Portugal, 15.03.1913, leg. Weigold.

Described from a series of three specimens; only the holotype was designated in the original description. Paralectotype designated by Rheinwald & van den Elzen (1984), as specimen was labelled as “Cotype”. Type and third specimen at the MfN, Berlin. – Dickinson (2003): *Carduelis cannabina cannabina* (Linnaeus, 1758).

Carduelis deichleri Kleinschmidt, 1936
Katalog meiner ornithologischen Sammlung: 17.

Lectotypes: Coll. Kl. 632–634, 3 males, Holley, New York, 30.03., 04. and 11.04.1888, leg. Craven No 41–43.

In the very short description no types are designated, not defined as types in the Catalogue (Kleinschmidt 1935–1943), but only these two specimens are registered. Lectotypes designated by Rheinwald & van den Elzen (1984). – Dickinson (2003): *Carduelis flammea flammea* (Linnaeus, 1758).

Citrinella corsicana Koenig, 1899
Orn Monatsber 7: 120.

Lectotypes: ZFMK I.II.12.a¹.γ., female, Bocognano, Corsica, 01.04.1896; ZFMK I.II.12.a¹.δ., female, Bocognano, Corsica, 04.04.1896; ZFMK I.II.12.a¹.ε., male, Bocognano, Corsica, 06.04.1896, all leg. Koenig.

Described from six specimens, but no type specimen designated; ZFMK I.II.12.a¹.α. and β. defined as type specimens in the inventory register, but currently untraceable; one specimen (ζ) exchanged with the AMNH, New York. – Dickinson (2003): *Serinus serinus* (Linnaeus, 1766).

Serinus estherae renatae Schuchmann & Wolters, 1982
Bull Brit Orn Cl 102: 12.

Holotype: ZFMK 81.563, ? male, Rantekombola, Sulawesi, 06.08.1980, leg. Krause.

Described from this single specimen. – Dickinson (2003): *Serinus estherae renatae*.

Loxia nidificans Kleinschmidt, 1919
Falco 14: 16.

Lectotypes: Coll. Kl. 1008, o, Wladikaukas, Caucasus, without date; Coll. Kl. 1009, Wladikaukas, Caucasus, without date;

Type specimens defined subsequently in Catalogue (Kleinschmidt 1935–1943: 23). – Dickinson (2003): *Loxia curvirostra guillemardi*, Madarász, 1903.

EMBERIZIDAE

Emberiza citrinella caliginosa Clancey, 1940
Ibis 14: 94.

Paralectotype: ZFMK 50.106, male, Sutherlandshire, shotland, 30.08.1938, leg. Clancey.

Holotype in the Coll. Clancey, RSME, Edinburgh, Durnoch, E Sutherlandshire, 02.09.1938.

In his original description Clancey did not define material examined, only the holotype was designated. Paralectotype designated by Rheinwald & van den Elzen (1984) from information on ZFMK inventory. – Dickinson (2003): *Emberiza citrinella caliginosa*.

Emberiza cirrus nigrostriata Schiebel, 1910
Orn Jahrb 21: 103.

Syntypes: ZFMK 57.1300 and 57.1298, 2 males, Ghisonaccia, Corsica, 15. and 16.04.1910, leg. Schiebel.

Apparently no further material existed (see also Schifter & van den Elzen 1986). – Dickinson (2003): *Emberiza cirrus* Linnaeus, 1766.

Fringillaria capensis cloosi Hoesch & Niethammer, 1940
J Ornithol 88, Sonderheft: 335.

Holotype: ZFMK 39.514, male, Brandberg, Namibia, 14.09.1938, leg. Niethammer No 88.

Paratypes: ZFMK 39.513 and 39.515, male, female, Brandberg, 13. and 12.09.1938, leg. Niethammer.

Described from four specimens, one lost. – Dickinson (2003): *Emberiza capensis bradfieldi* (Roberts, 1928).

Emberiza cia africana le Roi, 1911
Orn Monatsber 19: 79.

Holotype: ZFMK I.I.3.r⁴.α., male, Lambessa, Algeria, 13.06.1903, leg. Flükiger.

Described from thirteen specimens with no specifications, only the holotype was designated in the original description. Of the original material, probably only the holotype still exists. – Dickinson (2003): *Emberiza cia* Linnaeus, 1766.

Emberiza cia flemingorum Martens, 1972
Bonn zool Beitr 23: 116.

Holotype: ZFMK 71.809, female, Barbung Khola, Tarang, Nepal, 14.06.1970, leg. Martens, No 585.

Paratypes: ZFMK 71.810, male, Dhorpatan, 03.05.1970; ZFMK 71.811, male, Gompā near Tarakot, 13.05.1970; ZFMK 71.812, male, Ringmo at Lake Phoksumdo, 29.05.1970; ZFMK 71.813, male, Ringmo at Lake Phoksumdo, 29.05.1970; ZFMK 71.814, male, Ringmo at Lake Phoksumdo, 03.06.1970; ZFMK 71.815, female, Gompā near Tarakot, 13.05.1970; ZFMK 71.816, female, Ringmo at Lake Phoksumdo, 24.05.1970; ZFMK 71.817, female, Barbung Khola, Tarang, Nepal, 14.06.1970, all leg. Martens Nos 577–584. – Dickinson (2003): *Emberiza cia flemingorum*.

Emberiza tschusii witherbyi Jordans, 1923
Falco 19, Sonderheft: 4.

Holotype: ZFMK I.I.4.bb³.v., male, Albufera, Majorca, 13.06.1921, leg. A. von Jordans No 3140.

Paralectotypes: ZFMK I.I.4.bb³.α., male juv., Albufera, 10.06.1921; ZFMK I.I.4.bb³.β., male juv., Albufera, 13.06.1921; ZFMK I.I.4.bb³.γ., female juv., Albufera, 10.06.1921; ZFMK I.I.4.bb³.δ., female, Albufera, 18.06.1921; ZFMK I.I.4.bb³.ε., female, Albufera, 13.06.1921; ZFMK I.I.4.bb³.ζ., female juv., Albufera, 01.06.1921; ZFMK I.I.4.bb³.η., female, Albufera, 13.06.1921; ZFMK I.I.4.bb³.θ., male, Albufera, 10.06.1921; ZFMK I.I.4.bb³.ι., male, Albufera, 18.05.1921; ZFMK I.I.4.bb³.κ., male, Albufera, 10.06.1921; ZFMK I.I.4.bb³.λ., male, Albufera, 10.06.1921; ZFMK I.I.4.bb³.μ., male, Albufera, 10.06.1921; ZFMK I.I.4.bb³.ξ., male, Albufera, 13.06.1921; ZFMK I.I.4.bb³.ο., male, Albufera, 10.06.1921; ZFMK I.I.4.bb³.π., male, Albufera, 13.06.1921; ZFMK I.I.4.bb³.ρ., male, Albufera, 10.06.1921, all leg. A. von Jordans.

Described from a series of seventeen specimens, two are missing in the ZFMK collection. In the original description only the holotype was designated by v. Jordans; paralectotypes designated by Rheinwald & van den Elzen (1984) from topotypical material. – Dickinson (2003): *Emberiza schoeniclus witherbyi*.

Emberiza schoeniclus zarudnyi Härms, 1909
Orn Monatsber 17: 1.

Holotype: ZFMK I.I.4.bb⁷.α., Kuldscha at Ili-River, Turkestan, 01.05. without year, Tancré's collector, Coll. Härms No 504, Coll. A. von Jordans No 1364.

Type designated in original description, but no collection number provided; information on type status taken from Jordans (1923: 9) and handwritten label. Jordans mentions a second specimen, which may be a para(lecto)type. – Dickinson (2003): *Emberiza schoeniclus pyrrhuloides* Palas, 1811.

Zonotrichia capensis illescasensis Koepcke, 1963
Beitr neotrop Fauna 3: 6.

Paratype: ZFMK 64.3809, female, N Revantazón at Cerro Illescas, N Peru, 20.07.1958, leg. Koepcke No 1568 a.

Holotype at the MNH Javier Prado, Lima, Orn. 1156 (Kp 1568 b), other paratypes at the AMNH, New York and CNHM, Chicago.

Bonn zoological Bulletin 59: 29–77

Described from a series of three males and three females. – Dickinson (2003): *Zonotrichia capensis illescasensis*.

Phrygilus alaudinus humboldti Koepcke, 1963
Beitr neotrop Fauna 3: 11.

Paratype: ZFMK 64.3808, male, Quebrada Avip at Cerro Illescas, N Peru, 23.V07.1958, leg. Koepcke No 1572 b.

Holotype at the MHN Javier Prado, Lima, Orn. 1162 (Kp 1575 d), other paratypes in MHN, Lima, CNHM, Chicago and AMNH, New York.

Described from a series of six males and six females. – Dickinson (2003): *Phrygilus alaudinus humboldti*.

Sporophila obscura pacifica Koepcke, 1963
Beitr neotrop Fauna 3: 3.

Paratype: ZFMK 56.1055, male, Atiquipa near Chala, (coast in S Peru), 5.I.1956, leg. Koepcke No 1332 a.

Holotype at the MHN Javier Prado, Lima, Orn 1159 (Kp 1789 n), other paratypes in the collections of MHN and AMNH, New York.

Described from a series of four males and one juvenile specimen. – Dickinson (2003): *Tiaris obscurus pacificus* (Koepcke, 1963).

Acknowledgements. My thanks go to Carlos Sanchez-Osés for lending me a helping hand with type material and to Stefanie Rick for translating the German text and for patient proof reading.

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A list of the herpetological type specimens in the Zoologisches Forschungsmuseum Alexander Koenig, Bonn

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Abstract. In the herpetological collection of ZFMK 528 scientific species group names are represented by type material. Of these, 304 names are documented by primary type specimens (onomatophores) while for 224 further names secondary type specimens (typoids) are available, ranging chronologically from 1801 to 2010. The list is a shortened predecessor of a comprehensive type catalogue in progress. It lists name bearing types with their catalogue numbers including information on further type series members also in other institutions, while secondary types are listed only by presence, both in ZFMK and other collections including holotype repositories. Geographic origin and currently valid names are also provided.

Key words. Amphibians and reptiles, type list, ZFMK Bonn.

INTRODUCTION

A first ZFMK herpetological type catalogue was published (Böhme 1974) three years after I had entered Museum Koenig as a herpetological curator. It contained only 34 reptilian names documented by type material, 22 of which were name-bearing type specimens (onomatophores), and 12 further names were documented by paratypes only. Amphibians were not represented by type material at that time. A second type catalogue was published ten years later, on the occasion of the 50th anniversary of Museum Koenig as a public zoological museum (Böhme & Bischoff 1984). It counted 147 names of amphibians (51) and reptiles (96) of which 99 were onomatophores while 48 additional names were documented by secondary type material (paratypes, paralectotypes). In addition, 22 names representing primary and secondary type specimens of historical material which had belonged before to the Zoological Museum in Göttingen (transferred to ZFMK in 1977) were listed as missing types because they were already lost before they ever reached ZFMK.

Within the present special BzB issue on type lists of the vertebrate and invertebrate collections of ZFMK, the present herpetological list is a much shortened predecessor of a comprehensive, critically evaluated type catalogue of ZFMK amphibians and reptiles which will be published in the framework of a monograph dealing with the history of herpetological research in Bonn since the foundation of the Rheinische Friedrich-Wilhelms-Universität in 1818 which predates the foundation of ZFMK, particularly the creation of its own herpetological department

(currently section) in 1951, for many decades. Nonetheless, the present list does comprise some historical “pre-ZFMK” material which has been obtained after 1971 from smaller university museums, first of all from the Zoological Museum of the University of Göttingen (1977). Single taxa documented by type specimens were also received by the Zoological Museum of the University of Kiel (1973), and recently by the Biogeography Department of the University of Saarbrücken (via University of Trier, in 2009).

The following catalogue comprises, with one exception (the chameleon *Kinyongia vanheygeni*), only the extant types while those types which went lost in Göttingen before the collection transfer to Bonn, and which have been already mentioned in Böhme & Bischoff (1984), will be carefully listed and commented on in the forthcoming monograph mentioned above.

The delimitation and arrangement of families follows Frost et al. (2006) for the amphibians, and Böhme & Sander (2010) for the reptiles, plus the familial concept of Zaher et al. (2009) for colubroid snakes. For dendrobatid frogs, I follow the monograph by Grant et al. (2006, see also Lötters et al. 2007); for Madagascar, I follow Glaw & Vences (2007). Within their families, taxa are arranged in alphabetical order of genera, and within genera, arrangement is again alphabetically. Names of authors are accompanied by an initial letter of their forenames only when a family name occurs more than twice.

Catalogue numbers are given here for primary types only, i.e. for holotypes, lectotypes and neotypes; syntypes are also counted under this category because they are the first candidates for lectotype selection and are thus likely to contain future lectotypes; for secondary types, i.e. paratypes and paralectotypes, only their presence in ZFMK and/or other collection is reported: due to the necessity to avoid redundancies with the future big catalogue. All names are given in their original combinations; if taxonomic assignment or rank has changed, the current name believed to be valid today is given. This shortened preliminary type list thus offers the following informations:

- All names which are represented at ZFMK by type material, in their original taxonomic combinations.
- Primary, name-bearing types and their catalogue numbers; also the repositories of additional secondary type material, if at all existent.
- If only secondary types are involved at ZFMK, the collection housing the respective onomatophore is given, together with all collections holding additional secondary type material.
- The rough geographic origin of the respective taxa.
- The current name combination, if the original combination has changed.

For more details including full bibliographic references of each name, for full locality and collector's data, as well as for taxonomic and/or historical comments the reader is referred to the comprehensive monograph in progress.

Abbreviations for museum collections used:

AMNH = American Museum of Natural History, New York
 ANSP = Academy of Natural Sciences, Philadelphia
 BEV = Laboratoire de Biogéographie et Ecologie des Vertébrés, École Pratique des Hautes Études, Montpellier
 BIUB = Mongolian Academy of Sciences, Ulan Bataar
 BM(NH) = British Museum (of Natural History), The Natural History Museum, London
 CAS = California Academy of Sciences, San Francisco
 CBF = Colección Boliviana de Fauna, La Paz
 CET = Centro de Estudios Tropicales, Sevilla, Spain
 CM = Carnegie Museum, Pittsburgh
 CNHM = Chicago Natural History Museum
 DZCHU = Department of Zoology, Charles University, Prague
 DZUL = Departamento de Zoología, Universidad de La Laguna, Tenerife
 EBD = Estación Biológica de Doñana, Sevilla
 EPN = Escuela Politécnica Nacional, Quito
 FMNH = Field Museum of Natural History, Chicago

GNHM = Göteborgs Naturhistoriska Museet (see also NHMG)

HLMD = Hessisches Landesmuseum, Darmstadt

IEBR = Institute of Ecology and Biological Resources, Hanoi

IFAN = Institut Fondamental d'Afrique Noire, Dakar

INHS = Illinois Natural History Survey [descended in part from Illinois State Laboratory of Natural History], University of Illinois, Champaign, Illinois

INPA = Instituto Nacional de Pesquisas da Amazônia, Manaus

IRSNB = Institut Royal des Sciences Naturelles de Belgique, Bruxelles / (= KBIN) Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussel

IZUG = Institute of Zoology, University of Genova

LACM = Natural History Museum of Los Angeles County, Los Angeles

LBUM = Laboratoire de Biogéographie, Université de Montpellier

LSUZM = Louisiana State University Zoological Museum

MCC = Museo Civico di Storia Naturale, Carmagnola

MCNSC = Museo Insular de Ciencias Naturales de Santa Cruz de Tenerife

MCZ = Museum of Comparative Zoology, Cambridge, Massachusetts

MGL = Musée Guimet d'Histoire Naturelle, Lyon

MHNCP = Museo de Historia Natural, Universidad Nacional de San Antonio Abad del Cusco, Cusco

MHNG = Muséum d'Histoire Naturelle, Genève

MHNSM = Museo de Historia Natural San Marcos, Lima

MM = Museum Magdeburg

MNCN = Museo Nacional de Ciencias Naturales, Madrid

MNHN = Muséum National d'Histoire Naturelle, Paris

MPEG = Museu Paraense "Emílio Goeldi", Zoologia, Belém, Pará

MRAC = Musée Royal de l'Afrique Centrale, Tervuren

MRSN = Museo Regionale di Scienze Naturali, Torino

MTKD (or MTD respectively) = Museum für Tierkunde Dresden

MUSM = Museo de Historia Natural San Marcos

MZB = "Museum Zoologicum Bogoriense" = Zoological Museum, Bogor

MZUF = Museo Zoologico, Università di Firenze, Florence

MZUN = Museo di Zoologia dell'Università di Napoli, Naples

MZUSP = Museu de Zoologia da Universidade de São Paulo, São Paulo (also as MZSP and MSP)

NHCY = Natural History Collection Yemen, Sana'a

NHMG = Naturhistoriska Riksmuseet, Göteborg (see also GNHM)

NKA = Museo de Historia Natural "Noël Kempff Mercado", Santa Cruz de la Sierra

NMB = Naturhistorisches Museum Basel

NMBE = Naturhistorisches Museum Bern
 NMK = National Museums of Kenya, Nairobi
 NMNW = National Museum of Namibia, Windhoek
 NMP = National Museum Prague
 NMSR = National Museum of South Rhodesia (= now Zimbabwe), Harare
 NMW = Naturhistorisches Museum Wien, Vienna
 NUOL = National University of Laos, Vientiane
 OMNH = Osaka Museum of Natural History, Laboratory of Zoology, Osaka
 PEM = Port Elizabeth Museum
 PMNH = Pakistan Museum of Natural History, Islamabad
 QCAZ = Museo de Zoología, Pontifica Universidad Católica, Quito
 QSMI = Queen Saovabha Memorial Institute, Thai Red Cross Society, Bangkok
 RMNH = Rijksmuseum van Natuurlijke Historie, today “naturalis”, Leiden
 SMF = Senckenberg-Museum Frankfurt/M.
 SMNS = Staatliches Museum für Naturkunde, Stuttgart
 SNHM = Staatliches Naturhistorisches Museum Braunschweig
 SZE = SistematiK Zooloji Kürsüsü, Ege Üniversitesi, Bornova/Izmir
 TFMC = Museo Insular de Santa Cruz de Tenerife
 TM = Transvaal Museum, Pretoria
 UADBA = Université d’Antananarivo, Dépt. de Biologie Animale, Antananarivo
 UF = Florida Museum of Natural History, Gainesville
 UIMNH = University of Illinois Museum of Natural History, Urbana, Illinois, curated at INHS
 ULABG = Colección de Anfibios y Reptiles, Laboratorio de Biogeografía, Universidad de Los Andes, Mérida
 UMMZ = University of Michigan, Museum of Zoology, Ann Arbor
 UNLP = Universidad Nacional de La Plata, National University of La Plata
 UNS = University of National Sciences, Ho Chi Min City, Vietnam
 URP = Museo de Historia Natural, Universidad Ricardo Palma, Lima
 USNM = United States National Museum, Washington
 UTA = University of Texas at Arlington
 UZMK = (see ZMUC)
 VNMN = Vietnam National Museum of Nature, Hanoi
 VNUH = Zoological Museum of the Vietnam National University, Hanoi
 ZIH = Zoological Institute, University of Halle
 ZIK = Zoological Institute, Ukrainian Academy of Sciences, Kiev (also as ZMUAS and IZANU)
 ZIL = ZISP = Zoological Institute, Russian Academy of Sciences, Leningrad =
 ZISP = Zoological Institute, Russian Academy of Sciences, St. Petersburg
 ZIT = Zoological Institute, Grusinian Academy of Sci-

ences, Tbilisi
 ZLU = Departamento de Zoología de la Universidad de La Laguna, Tenerife
 ZMA = Zoologisch Museum, Universiteit van Amsterdam
 ZMB = Zoologisches Museum = Museum für Naturkunde, Berlin
 ZMH = Zoologisches Museum der Universität Hamburg
 ZMMU = Zoological Museum, Moscow State University
 ZMUC = Zoological Museum, University of Copenhagen
 ZRC = Zoological Reference Collection, National University of Singapore
 ZSM = Zoologische Staatssammlung München

LIST OF EXTANT TYPE SPECIMENS

AMPHIBIA

GYMNOPHIONA

Caeciliidae

Caecilia kaupii Berthold, 1859

Holotype: ZFMK 27684, no paratypes

Origin: Venezuela

Current name *Potomotyphlops kaupii*.

Osaecilia koepckeorum M. Wake, 1984

Holotype: ZFMK 23392, no paratypes

Origin: Peru.

URODELA

Salamandridae

Cynops shataukokensis Freytag & Eberhard, 1977

Paratypes in ZFMK, Holotype SMF,

Origin: “China”

Current name: *Cynops pyrrhogaster*.

Mertensiella luschani antalyana Basoglu & Baran, 1976

Paratype in ZFMK, further paratypes and holotype in SZE,

Origin: SW Turkey

Current name: *Lyciasalamandra antalyana*.

Mertensiella luschani atifi Basoglu, 1967

Paratypes in ZFMK and in SZE, Holotype in SZE

Origin: SW Turkey

Current name: *Lyciasalamandra atifi*.

Mertensiella luschani basoglui Baran & Atatür, 1980
Paratypes in ZFMK amnd SZE, Holotype in SZE
Origin: SW Turkey
Current name: *Lyciasalamandra luschani basoglui*.

Mertensiella luschani billae Franzen & Klewen, 1987
Holotype: ZFMK 45766, paratypes in ZFMK and ZSM
Origin: SW Turkey
Current name: *Lyciasalamandra billae*.

Mertensiella luschani fazilae Basoglu & Atatür, 1974
Paratypes in ZFMK and SZE, Holotype in SZE
Origin: SW Turkey
Current name: *Lyciasalamandra fazilae*.

Mertensiella luschani finikensis Basoglu & Atatür, 1975
Paratypes in ZFMK and SZE, Holotype in SZE
Origin: SW Turkey
Current name: *Lyciasalamandra luschani finikensis*.

Mertensiella luschani helverseni Pieper, 1963
Paratypes in ZFMK and SMF, Holotype in SMF
Origin: Karpathos Id., Greece
Current name: *Lyciasalamandra helverseni*.

Paramesotriton caudomaculatus Seidel, 1981
Lectotype: ZFMK 38536, paralectotypes in ZFMK
Origin: China
Current name: *Paramesotriton caudopunctatus*.

Salamandra algira tingitana Donaire-Barroso & Bogaerts, 2003
Paratypes in ZFMK, Holotype in MNCN
Origin: N Morocco

Salamandra salamandra alfredschmidtii G. Köhler & Steinfartz, 2006
Paratypes in ZFMK, SMF and SNHM
Origin: Asturias, Spain

Salamandra salamandra gigliolii Eiselt & Lanza, 1956
Paratypes in ZFMK, NMW, MM anfd MZUF, Holotype in MZUF
Origin: Italy

Salamandra salamandra (gallaica) crespoi Malkmus, 1983
Holotype: ZFMK 36842, Paratypes in MTKD
Origin: S Portugal
Current name: *Salamandra salamandra crespoi*.

Salamandra salamandra longirostris Joger & Steinfartz, 1994
Paratypes in ZFMK and MM, Holotype in HLMD

Origin: S Spain
Current name: *Salamandra longirostris*.

Triton ophryticus Berthold, 1846
Lectotype: ZFMK 27793, paralectotype lost
Origin: Georgia
Current name: *Ommatotriton ophryticus*.

Triturus vulgaris kosswigi Freytag, 1955
Paratypes in ZFMK, MM and ZISP, Holotype in MM
Origin: N Turkey
Current name: *Lissotriton vulgaris kosswigi*.

Tylototriton vietnamensis Böhme, Schöttler, Nguyen Q.T. & J. Köhler, 2005
Holotype: ZFMK 80637, paratypes in ZFMK
Origin: Vietnam

Plethodontidae

Oedipina uniformis Keferstein, 1868
Holotype: ZFMK 27833, no paratypes
Origin: Costa Rica

SALIENTIA

Megophryidae

Leptolalax pictus Malkmus, 1992
Holotype: ZFMK 51762, paratypes in ZMB
Origin: Sabah, Malaysia

Limnodynastidae

Limnodynastes peronii* var. *rugulosus Keferstein, 1867
Syntypes: ZFMK 28332–337
Origin: NSW, Australia
Current name: *Limnodynastes tasmaniensis*

Platyplectrum superciliare Keferstein, 1867
Holotype: ZFMK 28331, no paratypes
Origin: "Australia"
Current name: *Limnodynastes dorsalis*

Myobatrachidae

Crinia georgiana* var. *laevipes Keferstein, 1867
Syntypes: ZFMK 28246–247
Origin: NSW, Australia
Current name: *Crinia signifera*

Pseudophryne coriacea Keferstein, 1867

Syntypes: ZFMK 38201–207

Origin: NSW, Australia

Uperoleia marmorata* var. *laevigata Keferstein, 1867

Lectotype: ZFMK 26309, paralectotypes in ZFMK

Origin: NSW, Australia

Current name: *Uperoleia laevigata***Pelodryadidae*****Hyla dentata*** Keferstein, 1868

Holotype: ZFMK 28808, no paratypes

Origin NSW, Australia

Current name: *Litoria dentata****Hyla (Litoria) freycineti* var. *unicolor*** Keferstein, 1867

Syntypes: ZFMK 28788–789

Origin: “Australien”

Current name: *Litoria freycineti****Hyla (Litoria) mystacina*** Keferstein, 1867

Holotype: ZFMK 28810, no paratypes

Origin: “Australien”

Current name: *Litoria mystacina****Hyla schuettei*** Keferstein, 1868

Holotype: ZFMK 28809, no paratypes

Origin: “Sydney”, Australia

Current name: *Litoria adelaidensis***Amphignathodontidae*****Gastrotheca piperata*** Duellman & J. Köhler, 2005

Holotype: ZFMK 66838, paratype in ZFMK

Origin: Bolivia

Hylidae***Argenteohyla altamazonica*** Henle, 1981

Holotype: ZFMK 29993, paratype in ZFMK

Origin: Peru

Current name: *Trachycephalus venulosus****Dendropsophus salli*** Jungfer, Reichle & Piskurek, 2010

Paratypes in ZFMK, MNK and SMNS, holotype in NMK

Origin: Bolivia.

Hyla coffea J. Köhler, Jungfer & Reichle, 2005

Paratypes in ZFMK and CBF, holotype in CBF

Origin: Bolivia

Current name: *Dendropsophus coffea****Hyla creolica*** Werner, 1899

Syntypes: ZFMK 28569–583

Origin: Colombia

Current name: *Dendropsophus labialis****Hyla delarivai*** J. Köhler & Lötters, 2001

Paratypes in ZFMK and HLMD, Holotype in CBF

Origin: Bolivia

Current name: *Dendropsophus delarivai****Hyla elkejungingerae*** Henle, 1981

Holotype: ZFMK 33352, paratypes in ZFMK

Origin: Peru

Current name: *Osteocephalus mimeticus****Hyla felixarabica*** Gvozdk, Moravec, Klütsch & Kotlik, 2010

Paratypes in ZFMK, ZMH and NMP, holotype in NMP

Origin: Yemen

Hyla joannae J. Köhler & Lötters, 2001

Paratypes in ZFMK, CBF, KU and HLMD, holotype in CBF

Origin: Bolivia

Current name: *Dendropsophus joannae****Hyla lineomaculata*** Werner, 1899

Holotype: ZFMK 28585, no paratypes

Origin: Trinidad

Current name: *Scinax ruber****Hyla servalina*** Werner, 1899

Holotype: ZFMK 28584, no paratypes

Origin: Colombia

Current name: *Dendropsophus labialis****Hypsiboas nympha*** Faivovich, Moravec, Cisneros-Heredia & J. Köhler, 2006

Paratypes in ZFMK, AMNH, KU, DFCH-USFQ, QCAZ and NMP, holotype in DFCH-USFQ

Origin: Ecuador

Ololygon pedromedinae Henle, 1991

Holotype: ZFMK39737, no paratypes

Origin: Peru

Current name: *Scinax pedromedinae****Osteocephalus deridens*** Jungfer, Ron, Seipp & Almen-dariz, 2000

Paratypes in ZFMK, SMF, EPN and QCAZ, holotype in EPN

Origin: Ecuador

Osteocephalus fuscifacies Jungfer, Ron, Seipp & Almenarez, 2000

Paratypes in ZFMK, EPN, MHNG and QCAZ, holotype in EPN

Origin: Ecuador

Osteocephalus mutabor Jungfer & Hödl, 2002

Paratypes in ZFMK, EPN, MHNG and SMF, holotype in EPN

Origin: Ecuador

Osteocephalus oophagus Jungfer & Schiesari, 1995

Paratypes in ZFMK, NMW, MPEG, AMNH, MZUSP, INPA and SMNS

Origin: Amazonian Brazil

Phyllomedusa camba De la Riva, 2000

Paratypes in ZFMK, KU, NKA and USNM, holotype in NKA

Origin: Bolivia

Phyllomedusa iheringii Boulenger, 1885

Syntype: ZFMK 28560, further syntypes in BMNH

Origin: Rio Grande do Sul, Brazil

Centrolenidae

Hyalinobatrachium carlesvilai Castroviejo-Fisher, Padial, Chaparro, Aguayo & De la Riva, 2009

Paratypes in ZFMK, MHNCP and MNCN, Holotype in MNCN

Origin: Bolivia

Strabomantidae

Eleutherodactylus ashkapara J. Köhler, 2000

Paratype in ZFMK, holotype in CBF

Origin: Bolivia

Current name: *Yunganastes ashkapara*

Eleutherodactylus ibischi Reichle, Lötters & De la Riva, 2001

Paratype in ZFMK, holotype in CBF

Origin: Bolivia

Current name: *Oreobates ibischi*

Eleutherodactylus llojsintuta J. Köhler & Lötters, 1999

Paratypes in ZFMK, CBF and NKA, holotype in CBF

Origin: Bolivia

Current name: *Pristimantis llojsintuta*

Eleutherodactylus nebulosus Henle, 1992

Holotype: ZFMK 27634, no paratypes

Origin: Peru

Current (substitute) name: *Pristimantis caliginosus*

Eleutherodactylus olivaceus J. Köhler, Morales, Lötters, Reichle & Aparicio, 1998

Paratypes in ZFMK, CBF, MUSM and USNM

Origin: Bolivia

Current name: *Pristimantis olivaceus*

Eleutherodactylus samaipatae J. Köhler & Jungfer, 1995

Holotype: ZFMK 59600, no paratypes

Origin: Bolivia

Current name: *Pristimantis samaipatae*

Eleutherodactylus pluvicanorus De la Riva & Lynch, 1997

Paratypes in ZFMK, CET, UTA and SMF, holotype in NKA

Origin: Bolivia

Current name: *Yunganastes pluvicanorus*

Ischnocnema sanderi Padial, Reichle & De la Riva, 2005

Paratypes in ZFMK, CBF, MNCN and NKA, holotype in CBF

Origin: Bolivia

Current name: *Oreobates sanderi*

Phyllonastes carrascoicola De la Riva & J. Köhler, 1998

Holotype: ZFMK 59573, paratypes in ZFMK

Origin: Bolivia

Current name: *Noblella carrascoicola*

Pristimantis koehleri Padial & De la Riva, 2009

Paratypes in ZFMK, MNCN and NMK, holotype in MNCN

Origin: Bolivia

Pristimantis reichlei Padial & De la Riva, 2009

Paratypes in ZFMK, MNCN and NMK, holotype in NMK

Origin: Bolivia

Pristimantis yuruanensis Rödder & Jungfer, 2008

Holotype: ZFMK 87278, paratypes in SMNS and ULA-BG

Origin: Venezuela

Leptodactylidae

Adenomera griseigularis Henle, 1981

Holotype: ZFMK 31800, no paratypes

Origin: Peru

Current name: *Leptodactylus griseonotus*

***Leptodactylus raniformis* Werner, 1899**

Holotype: ZFMK 80600, no paratypes

Origin: Colombia

***Leptodactylus gracilis delattini* P. Müller, 1968**

Holotype: ZFMK (recently acquired, to be catalogued soon)

Origin: S Brazil

Ceratophryidae***Telmatobius hockingi* Salas & Sinsch, 1996**

Paratypes in ZFMK and URP, holotype in URP

Origin: Peru

***Telmatobius mayoloi* Salas & Sinsch, 1996**

Paratypes in ZFMK, URP, MHNSM and KU, holotype in URP

Origin: Bolivia

Cyclorhamphidae***Odontophrynus cordobae* Martino & Sinsch, 2002**

Holotype: ZFMK 73460, transferred to UNLP, paratypes in ZFMK

Origin: Argentina

Dendrobatidae***Ameerega boehmei* Lötters, Schmitz, Reichle, Rödder & Quennet, 2009**

Paratypes in ZFMK, CAS, CM, LACM and NKA, Holotype in NKA

Origin: Bolivia

***Dendrobates claudiae* Jungfer, Lötters & Jörgens, 2000**

Holotype: FMK 73561, paratypes in ZFMK

Origin: Panama

Current name: *Ranitomeya claudiae****Dendrobates histrionicus* Berthold, 1845**

Lectotype: ZFMK 28123, paralectotypes in ZFMK and AMNH

Origin: Colombia

Current name: *Oophaga histrionica****Dendrobates lehmanni* Myers & Daly, 1976**

Paratypes in ZFMK and AMNH

Origin: Colombia

Current name: *Oophaga lehmanni****Dendrobates nubeculosus* Jungfer & Böhme, 2004**

Holotype: ZFMK45354, no paratypes

Origin: Guyana

***Dendrobates typographus* Keferstein, 1867**

Holotype: 28115, no paratypes

Origin: Costa Rica

Current name: *Oophagus pumilio****Dendrobates variabilis* Zimmermann & Zimmermann, 1988**

Paratypes in ZFMK, holotype in SMNS

Origin: Peru

Current name: *Ranitomeya variabilis****Dendrobates vicentei* Jungfer, Weygoldt & Juraske, 1996**

Holotype: ZFMK 61100, paratypes in ZFMK and SMNS

Origin: Panama

Current name: *Oophaga vicentei****Epipedobates ardens* Jungfer, 1989**

Holotype: ZFMK 49084, paratype in ZFMK

Origin: Peru

Current name: *Ameerega cainarachi****Epipedobates bilinguis* Jungfer, 1989**

Holotype: ZFMK 49073, paratypes in ZFMK

Origin: Ecuador

Current name: *Amereega bilinguis****Epipedobates rubriventris* Lötters, Debold, Henle, Glaw & Kneller, 1997**

Holotype: ZFMK 64838, paratypes in ZFMK and ZSM

Origin: Peru

Current name: *Ameerega rubriventris****Phyllobates azureiventris* Kneller & Henle, 1985**

Holotype: ZFMK 41507, paratypes in ZFMK

Origin: Peru

Current name: *Hyloxalus azureiventris****Phyllobates melanorrhinus* Berthold, 1845**

Lectotype: ZFMK 28139, paralectotypes in ZFMK and AMNH

Origin: Colombia

Current name: *Phyllobates bicolor****Phyllobates terribilis* Myers, Daly & Malkin, 1978**

Paratype in ZFMK and AMNH, Holotype in AMNH

Origin: Colombia

***Phyllobates (Hypodiction) palmatus* Werner, 1899**

Holotype: ZFMK 28132, no paratypes

Origin: Colombia

Current name: *Rheobates palmatus*

***Prostherapis variabilis* Werner, 1899**

Syntypes: ZFMK 28134–138

Origin: Colombia

Current name: *Colostethus subpunctatus***Bufonidae*****Atelopus cruciger vogli* L. Müller, 1935**

Paratypes in ZFMK and ZSM, holotype in ZSM

Origin: Venezuela

***Atelopus flaviventris* Werner 1899**

Holotype: ZFMK 28107, no paratypes

Origin: Colombia

Current name: *Atelopus ignescens****Atelopus reticulatus* Lötters, Haas, Schick & Böhme, 2002**

Holotype: ZFMK 76247, further paratype in ZFMK

Origin: Colombia

***Atelopus subornatus* Werner, 1899**

Lectotype: ZFMK 28104, paralectotypes in ZFMK

Origin: Colombia

***Atelopus tricolor* Boulenger, 1902**

Lectotype: ZFMK 28103, paralectotypes in BMNH

Origin: SE Peru

***Bufo ehlersi* Werner, 1899**

Holotype: ZFMK 21414, no paratypes

Origin: Colombia

Current name: *Incilius coniferus****Bufo pentoni tihamicus* Balletto & Cherchi, 1973**

Paratypes in ZFMK and IZUG, Holotype in IZUG

Origin: Yemen

Current name: *Amietophrynus tihamicus****Bufo pithecodactylus* Werner, 1899**

Holotype: ZFMK 27999, no paratypes

Origin: Colombia

Current name: *Rhinella marina****Bufo pseudoraddei baturae* Stöck, Schmid, Steinlein & Grosse, 1999**

Paratype in ZFMK, holotype in ZSM

Origin: N Pakistan

***Bufo scorteccii* Balletto & Cherchi, 1970**

Paratypes in ZFMK and IZUG, Holotype in IZUG

Origin: Yemen

***Bufo siculus* Stöck, Sicilia, Belfiore, Buckley, Lo Brutto, Lo Valvo & Arculeo, 2008**

Paratypes in ZFMK, ZMB, MVZ, MZPA and NME, holotype in Museum of Terrasini, Palermo

Origin: Sicily, Italy

***Bufo stanlaili* Lötters & Köhler, 2000**

Paratypes in ZFMK, USNM and ZSM, Holotype in CBF

Origin: Bolivia

Current name: *Rhinella stanlaili****Bufo verrucosissimus circassicus* Orlova & Tuniyev, 1989**

Paratype in ZFMK, Holotype in ZMM

Origin: Russia

***Bufo viridis turanensis* Hemmer, Schmidtler & Böhme, 1978**

Paratypes in ZFMK, MTKD, ZSM and ZISP, Holotype in MTKD

Origin: Tadjikistan

***Nectophrynoides mirei* Perret, 1971**

Paratypes in ZFMK and MHNG, Holotype in MHNG

Origin: Cameroon

Current name: *Wolterstorffina mirei****Werneria ibundji* Rödel, Schmitz, Pauwels & Böhme, 2004**

Paratype in ZFMK, Holotype in IRSNB

Origin: Gabon

Werneria submontana

Holotype: ZFMK 69999, paratypes in ZFMK

Origin: Cameroon

Microhylidae***Anodonthyla emilei* Vences, Glaw, J. Köhler & Wollenberg, 2010**

Paratypes in ZFMK and ZSM, holotype in ZSM

Origin: Madagascar

***Anodonthyla jeanbai* Vences, Glaw, J. Köhler & Wollenberg, 2010**

Paratypes in ZFMK and ZSM. holotype in ZSM

Origin: Madagascar

***Anodonthyla moramora* Glaw & Vences, 2005**

Paratypes in ZFMK, ZSM, ZMA and UADBA, holotype in ZSM

Origin: Madagascar

Anodonthyla nigrigularis Glaw & Vences, 1992
Holotype: ZFMK 53745, paratypes in ZFMK and ZSM
Origin: Madagascar

Anodonthyla theoi Vences, Glaw, J. Köhler & Wollenberg, 2010
Paratypes in ZFMK and ZSM, holotype in ZSM
Origin: Madagascar

Hypopachus seebachi Keferstein, 1867
Syntypes: 28389–392
Origin: Costa Rica
Current name: *Hypopachus variolosus*

Microhyla marmorata Bain & Nguyen Q.T., 2004
Paratypes in ZFMK, AMNH and FMNH, holotype in IEBR
Origin: Vietnam

Pachybatrachus petersii Keferstein, 1868
Holotype: ZFMK 28388, no paratypes
Origin: “Neu-Süd-Wales, Australien”
Current name: *Uperodon systema*

Platypelis occultans Glaw & Vences, 1992
Holotype: ZFMK 53735, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Cophyla occultans*

Plethodontohyla coronata Vences & Glaw, 2003
Holotype: ZFMK 57459, paratypes in ZSM and UADBA
Origin: Madagascar
Current name: *Rhombophryne coronata*

Plethodontohyla mikanika Vences, Raxworthy, Nussbaum & Glaw, 2003
Paratypes in ZFMK, ZSM, UMMZ and MNHN, holotype in UMMZ
Origin: Madagascar

Rhombophryne mangabensis Glaw, J. Köhler & Vences, 2010
Paratypes in ZFMK, ZSM and UADBA, holotype in ZSM
Origin: Madagascar

Scaphiophryne boribory Vences, Raxworthy, Nussbaum & Glaw, 2003
Paratypes in ZFMK, MRSN, UMMZ and ZSM, holotype in UMMZ
Origin: Madagascar

Scaphiophryne gottlebei Busse & Böhme, 1992
Holotype: ZFMK 53543, paratypes in ZFMK and ZSM
Origin: Madagascar

Stumpffia gimmeli Glaw & Vences, 1992
Holotype: ZFMK 52541, paratypes in ZFMK and ZSM
Origin: Madagascar

Stumpffia pygmaea Vences & Glaw, 1991
Holotype: ZFMK 52541, paratypes in ZFMK and ZSM
Origin: Madagascar

Stumpffia tetradactyla Vences & Glaw, 1991
Holotype: ZFMK 52547, paratypes in ZFMK and ZSM
Origin: Madagascar

Hyperoliidae

Heterixalus mandrakata Glaw & Vences, 1991
Holotype: ZFMK 52557, paratypes in ZFMK and ZSM
Origin: Madagascar

Hyperolius dintelmanni Lötters & Schmitz, 2004
Holotype: 67871, paratypes in ZFMK
Origin: Cameroon

Hyperolius nienokouensis Rödel, 1998
Holotype: ZFMK 65392, paratypes in ZFMK, ZMUC and SMNS
Origin: Ivory Coast

Hyperolius veithi Schick, Kielgast, Rödder, Muchau, Burger & Lötters, 2010
Holotype: ZFMK 89607, paratypes in ZFMK and ZMUC
Origin: D.R. Congo

Kassina schioetzi Rödel, Grafe, Rudolf & Ernst, 2002
Paratype in ZFMK, Holotype in SMNS
Origin: Ivory Coast

Morerella cyanophthalma Rödel, Asseman, Kouamé, Tohé & Perret, 2009
Paratypes in ZFMK, MHNG, SMNS and ZMB, holotype in MHNG
Origin: Ivory Coast

Arthroleptidae

Cardioglossa alsco H.W. Herrmann, P. Herrman, Schmitz & Böhme, 2004
Holotype: ZFMK 77678, paratypes in ZFMK
Origin: Cameroon

Cardioglossa gratiosa peternageli Böhme & B. Schneider, 1987
Holotype: ZFMK 40805, paratypes in ZFMK
Origin: Cameroon

Leptodactylodon wildi Amit & Dowsett-Lemaire, 2000
Paratypes in ZFMK, MNHN and BMNH, Holotype in MNHN
Origin: Cameroon

Leptopelis crystallinoron Lötters, Rödel & Burger, 2005
Holotype 73139, no paratypes
Origin: Gabon

Leptopelis mackayi J. Köhler, Bwong, Schick, Veith & Lötters, 2006
Paratypes in ZFMK and NMK, holotype in NMK
Origin: W Kenya

Leptopelis spiritusnoctis Rödel, 2007
Paratypes in ZFMK, ZMB, SMNS, PEM and MOR, holotype in ZMB
Origin: SE Guinea

Phrynobatrachus nlonakoensis
Holotype: ZFMK 80970, paratypes in ZFMK
Origin: Cameroon
Current name: *Arthroleptis nlonakoensis*

Ptychadenidae

Ptychadena arnei Perret, 1997
Paratypes in ZFMK and ZMUC, Holotype in ZMUC
Origin: Senegal

Phrynobatrachidae

Phrynobatrachus kakamikro Schick, Zimkus, Channing, J. Köhler & Lötters, 2010
Paratypes in ZFMK, BMNH and NKM, Holotype in NKM
Origin: W Kenya

Phrynobatrachus phyllophilus Rödel & Ernst, 2002
Paratypes in ZFMK, ZSM, ZMUC and SMNS, Holotype in SMNS
Origin: Ivory Coast

Petropedetidae

Petropedetes euskircheni Barej, Rödel, Gonwouo, Pauwels, Böhme & Schmitz, 2010
Holotype: ZFMK 75582, paratypes in ZFMK, IRSNB and ZMB
Origin: Cameroon

Petropedetes juliawurstnerae Barej, Rödel, Gonwouo, Pauwels, Böhme & Schmitz, 2010
Holotype: 67360, paratypes in ZFMK, ZMB and IRSNB
Origin: Cameroon

Petropedetes vulpiae Barej, Rödel, Gonwouo, Pauwels, Böhme & Schmitz, 2010
Holotype: ZFMK 81623, paratypes in ZFMK, IRSNB, MHNG and ZMB
Origin: Cameroon

Dicroglossidae

Fejervarya iskandari Veith, Kosuch, Ohler & Dubois, 2001
Paratypes in ZFMK and FMNH, Holotype in MNHN
Origin: Java, Indonesia

Mantellidae

Aglyptodactylus laticeps Glaw, Vences & Böhme, 1998
Holotype: ZFMK 59972, paratypes in ZFMK and ZSM
Origin: Madagascar

Aglyptodactylus securifer Glaw, Vences & Böhme, 1998
Holotype: ZFMK 59975, paratype in ZSM
Origin: Madagascar

Blommersia galani Vences, J. Köhler, Pabijan & Glaw, 2010
Paratypes in ZFMK, ZSM and ZMA
Origin: Madagascar

Boophis albilabris occidentalis Glaw & Vences, 1994
Holotype: ZFMK 57383, paratype in ZSM
Origin: Madagascar

Boophis albipunctatus Glaw & Thiesmeier, 1993
Holotype: ZFMK 53617, no paratype
Origin: Madagascar

Boophis albipunctatus sibilans Glaw & Thiesmeier, 1993
Holotype: ZFMK 53618, paratype in ZSM
Origin: Madagascar
Current name: *Boophis sibilans*

Boophis andreonei Glaw & Vences, 1994
Holotype: ZFMK 57393, paratypes in ZFMK and ZSM
Origin: Madagascar

Boophis blommersae Glaw & Vences, 1995
Holotype: ZFMK 57398, paratypes in ZFMK and ZSM
Origin: Madagascar

Boophis boehmei Glaw & Vences, 1992

Holotype: ZFMK 53642, paratypes in ZFMK and ZSM
Origin: Madagascar

Boophis bottae Vences & Glaw, 2002

Paratypes in ZFMK, holotype in ZSM
Origin: Madagascar

Boophis burgeri Glaw & Vences, 1994

Holotype: ZFMK 53641, paratypes in ZFMK and ZSM
Origin: Madagascar

Boophis englaenderi Glaw & Vences, 1994

Holotype: ZFMK 57390, paratypes in ZFMK and ZSM
Origin: Madagascar

Boophis entingae Glaw, J. Köhler, De la Riva, Vieites & Vences, 2010

Paratypes in ZFMK and ZSM, holotype in ZSM
Origin: Madagascar

Boophis feonnyala Glaw, Vences, Andreone & Vallan, 2001

Paratypes in ZFMK, Holotype in ZSM
Origin: Madagascar

Boophis haematopus Glaw, Vences, Andreone & Vallan, 2001

Paratypes in ZFMK and MRSN, Holotype in ZSM
Origin: Madagascar

Boophis haingana Glaw, J. Köhler, De la Riva & Vieites, 2010

Paratypes in ZFMK, ZSM and UADBA, Holotype in ZSM
Origin: Madagascar

Boophis jaegeri Glaw & Vences, 1992

Holotype: ZFMK 52569, no paratypes
Origin: Madagascar

Boophis liami Vallan, Vences & Glaw, 2003

Holotype: ZFMK 60123, paratypes in ZFMK, NMBE, ZSM and UADBA
Origin: Madagascar

Boophis luciae Glaw, J. Köhler, De la Riva & Vieites, 2010

Paratypes in ZFMK, ZMA, ZSM and UADBA, Holotype in ZSM
Origin: Madagascar

Boophis luteus septentrionalis Glaw & Vences, 1994

Holotype: ZFMK 57386, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Boophis septentrionalis*

Boophis marojezensis Glaw & Vences, 1994

Holotype: ZFMK 57401, paratype in ZSM
Origin: Madagascar

Boophis picturatus Glaw, Vences, Andreone & Vallan, 2001

Paratypes in ZFMK, Holotype in ZSM
Origin: Madagascar

Boophis piperatus Glaw, J. Köhler, De la Riva, Vieites & Vences, 2010

Paratypes in ZFMK, UADBA and ZSM, Holotype in ZSM
Origin: Madagascar

Boophis pyrrhus Glaw, Vences, Andreone & Vallan, 2001

Paratypes in ZFMK, ZMA and MRSN, Holotype in ZSM
Origin: Madagascar

Boophis roseipalmatus Glaw, J. Köhler, De la Riva, Vieites & Vences, 2010

Paratypes in ZFMK and ZSM, Holotype in ZSM
Origin: Madagascar

Boophis rufiocularis Glaw & Vences, 1997

Holotype: ZFMK 60079, Paratypes in ZFMK and ZSM
Origin: Madagascar

Boophis sandrae Glaw, J. Köhler, De la Riva, Vieites & Vences, 2010

Paratypes in ZFMK, ZMA and ZSM, Holotype in ZMA
Origin: Madagascar

Boophis schuboeae Glaw & Vences, 2002

Holotype: ZFMK 62299, paratypes in ZFMK and ZSM
Origin: Madagascar

Boophis tampoka J. Köhler, Glaw & Vences, 2007

Paratypes in ZFMK, HLMD, FGZC, UADBA and ZSM, Holotype in ZSM
Origin: Madagascar

Boophis tasymena Vences & Glaw, 2002

Paratypes in ZFMK, Holotype in ZSM
Origin: Madagascar

Boophis xerophilus Glaw & Vences, 1997

Holotype: ZFMK 59987, paratypes in ZFMK and ZSM
Origin: Madagascar

Mantella aurantiaca rubra Staniszewski, 1996

Lectotype: ZFMK 68868, paralectotypes (coll. Staniszewski) lost
Origin: Madagascar
Current name: *Mantella aurantiaca*

- Mantella bernhardi*** Vences, Glaw, Peyrieras, Böhme & Busse, 1994
Holotype: ZFMK 57164, paratypes in ZFMK
Origin: Madagascar
- Mantella crocea*** Pintak & Böhme, 1990
Holotype: ZFMK 45007, paratypes in ZFMK and ZSM
Origin: Madagascar
- Mantella expectata*** Busse & Böhme, 1992
Holotype: ZFMK 53540, paratypes in ZFMK
Origin: Madagascar
- Mantella madagascariensis haraldmeieri*** Busse, 1981
Holotype: ZFMK 25351, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Mantella haraldmeieri*
- Mantella viridis*** Pintak & Böhme, 1988
Holotype: ZFMK 47900, no paratypes
Origin: Madagascar
- Mantidactylus ambohitra*** Vences & Glaw, 2001
Paratypes in ZFMK, MNHN and MTKD, holotype in ZSM
Origin: Madagascar
Current name: *Gephyromantis (Duboimantis) ambohitra*
- Mantidactylus charlotteae*** Vences & Glaw, 2004
Paratypes in ZFMK and ZSM, Holotype in ZMA
Origin: Madagascar
Current name: *Mantidactylus (Chonomantis) charlotteae*
- Mantidactylus cornutus***
Holotype: ZFMK 53691, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Gephyromantis (Duboimantis) cornutus*
- Mantidactylus corvus*** Glaw & Vences, 1992
Holotype: ZFMK 57430, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Gephyromantis (Phylacomantis) corvus*
- Mantidactylus enki*** Glaw & Vences, 2002
Holotype: ZFMK 62293, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Gephyromantis enki*
- Mantidactylus fimbriatus*** Glaw & Vences, 1994
Holotype: ZFMK 57441, paratype in ZSM
Origin: Madagascar
Current name: *Spinomantis fimbriatus*
- Mantidactylus kathrinae*** Glaw, Vences & Gossmann, 2000
Holotype: ZFMK 62264, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Guibemantis kathrinae*
- Mantidactylus kely*** Glaw & Vences, 1994
Holotype: ZFMK 57444, no paratypes
Origin: Madagascar
Current name: *Blommersia kely*
- Mantidactylus madinika*** Vences, Andreone, Glaw & Mattioli, 2002
Paratypes in ZFMK, MRSN and ZSM, Holotype in ZSM
Origin: Madagascar
Current name: *Wakea madinika*
- Mantidactylus massi*** Glaw & Vences, 1994
Holotype: ZFMK 57442, paratype in ZSM
Origin: Madagascar
Current name: *Spinomantis massi*
- Mantidactylus moseri*** Glaw & Vences, 1997
Paratypes in ZFMK, holotype in ZSM
Origin: Madagascar
Current name: *Gephyromantis (Duboimantis) moseri*
- Mantidactylus phantasticus*** Glaw & Vences, 1997
Holotype: ZFMK 60000, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Spinomantis phantasticus*
- Mantidactylus rivicola*** Vences, Glaw & Andreone, 1997
Holotype: ZFMK 57428, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Gephyromantis (Vatomantis) rivicola*
- Mantidactylus sarotra*** Glaw & Vences, 2002
Paratypes in ZFMK, UADBA-FG and ZSM, holotype in ZSM
Origin: Madagascar
Current name: *Blommersia sarotra*
- Mantidactylus schilfi*** Glaw & Vences, 2000
Holotype: ZFMK 59885, paratypes in ZSM and MNHN
Origin: Madagascar
Current name: *Gephyromantis (Duboimantis) schilfi*
- Mantidactylus (Laurentomantis) striatus*** Vences, Glaw, Andreone, Jesu & Schimmenti, 2002
Paratypes in ZFMK and FACZ (MRSN), holotype in ZSM
Origin: Madagascar
Current name: *Gephyromantis (Laurentomantis) striatus*

Mantidactylus tandroka Glaw & Vences, 2001
 Paratypes in ZFNK, ZSM and MNHN, holotype in MNHN
 Origin: Madagascar
 Current name: *Gephyromantis (Duboimantis) tandroka*

Mantidactylus thelenae Glaw & Vences, 1994
 Holotype: 57422, paratypes in ZFMK and ZSM
 Origin: Madagascar
 Current name: *Gephyromantis thelenae*

Mantidactylus timidus Vences & Glaw, 2005
 Paratypes in ZFMK and ZMA, holotype in ZMA
 Origin: Madagascar
 Current name: *Guibemantis timidus*

Mantidactylus tschenki Glaw & Vences, 2001
 Paratypes in ZFMK and MRSN, holotype in ZSM
 Origin: Madagascar
 Current name: *Gephyromantis (Duboimantis) tschenki*

Mantidactylus zavona Vences, Andreone, Glaw & Randrianirina, 2003
 Paratypes in ZFMK, MRSN, PBZT and UADBA, holotype in ZSM
 Origin: Madagascar
 Current name: *Gephyromantis (Duboimantis) zavona*

Mantidactylus zipperi Vences & Glaw, 2004
 Holotype: ZFMK 60090, paratypes in ZSM and MRSN
 Origin: Madagascar
 Current name: *Mantidactylus (Chonomantis) zipperi*

Mantidactylus zolitschka Glaw & Vences, 2004
 Holotype: ZFMK 60110, paratypes in ZFMK and ZSM
 Origin: Madagascar
 Current name: *Mantidactylus (Ochthomantis) zolitschka*

Tsingymantis antitra Glaw, Hoegg & Vences, 2006
 Paratypes in ZFMK, ZSM and UADBA, holotype in ZSM
 Origin: Madagascar

Rhacophoridae

Philautus quyeti Nguyen Q.T., Hendrix, Böhme, Vu & Ziegler, 2008
 Holotype: ZFMK 82999, paratype in VNUH
 Origin: Vietnam

Rhacophorus orlovi Ziegler & J. Köhler, 2001
 Holotype: ZFMK 71368, paratypes in ZFMK, MTKD, CRES and ZMB
 Origin: Vietnam

Ranidae

Amnirana fonensis Rödel & Bangoura, 2004
 Paratypes in ZFMK and SMNS, Holotype in SMNS
 Origin: Guinea

Amolops amoropalamus Matsui, 1986
 Paratypes in ZFMK and OMNH, Holotype in OMNH
 Origin: Sabah, Malaysia
 Current name: *Meristogenys amoropalamus*

Hylarana amnicola Perret, 1977
 Paratypes in ZFMK and MHNG, Holotype in MHNG
 Origin: Cameroon
 Current name: *Amnirana amnicola*

Hylarana asperrima Perret, 1977
 Paratypes in ZFMK and MHNG, Holotype in MHNG
 Origin: Cameroon
 Current name: *Amnirana asperrima*

Rana aragonensis Palanca Soler, Rodriguez Vieites & Suarez Martinez, 1995
 Paralectotypes in ZFMK and MNHN, Holotype in MNCN
 Origin: Spain
 Current name: *Rana temporaria*

Rana balcanica H. Schneider, Sinsch & Sofianidou, 1993
 Holotype: ZFMK 52825, paratypes in ZFMK
 Origin: Greece
 Current name: *Pelophylax kurtklari*

Rana epeirotica H. Schneider, Sinsch & Kyriakopoulou-Sklavounou, 1984
 Holotype: ZFMK 41679, paratypes in ZFMK
 Origin: Greece
 Current name: *Pelophylax epeiroticus*

Rana holtzi Werner, 1898y
 Syntypes: ZFMK 28913–914, one further syntype in NMW
 Origin: S Turkey

Rana levantina H. Schneider, Sinsch & Nevo, 1992
 Holotype ZFMK 52836, paratypes in ZFMK
 Origin: Israel
 Current name: *Pelophylax bedriagae*

Rana shqiperica Hotz, Uzzel, Günther & Heppich, 1987
 Paratypes in ZFMK, ANSP, UIMNH, ZMB, BO (Beograd) and MHNG, holotype in ANSP
 Origin: Albania
 Current name: *Pelophylax shqipericus*

TESTUDINES

Chelidae

Chelodina reimanni Philippen & Grossmann, 1990
 Paratypes in ZFMK, MTKD and UFMN, holotype MTKD
 Origin: West Papua, Indonesia
 Current name: *Chelodina novaeguineae*

Bataguridae

Cuora cyclornata Blanck, McCord & Le, 2006
 Holotype: ZFMK 71348, no designated paratypes
 Origin: Vietnam
 Current name: *Cuora trifasciata*

Geoemyda (trijuga) wiroti Nutaphand, 1979
 Holotype: ZFMK 46510, no paratypes
 Origin: Thailand
 Current name: *Melanochelys trijuga edeniana*

Emydidae

Emys orbicularis (galloitalica) capolongoi Fritz, 1995
 Paratypes in ZFMK, BMNH, HCC, MCZ, MGL, MHNG, MNHN, MTKD, MZUF, MZUN, NMB, SMF, ZMB and ZSM, holotype in MNHN
 Origin: Sardinia, Italy
 Current name: *Emys orbicularis capolongoi*

SQUAMATA

Iguanidae

Amblyrhynchus cristatus venustissimus Eibl-Eibesfeld, 1956
 Paratypes in ZFMK, SMF, HLMD and "Haus der Natur" Salzburg, holotype in SMF
 Origin: Galapagos Ids., Ecuador

Polychrotidae

Anolis albimaculatus Henle & Ehrl, 1991
 Holotype: ZFMK 34263, no paratypes
 Origin: Peru
 Current name: *Anolis boettgeri*

Anolis latifrons Berthold, 1845
 Holotype: ZFMK 21342, no paratypes
 Origin: "Provinz Popayan", Colombia

Norops bicaorum G. Köhler, 1996
 Paratypes in ZFMK, SMF, UNAH, UF and IRSNB, holotype in SMF
 Origin: Utila Id., Honduras

Polychrus gutturosus Berthold, 1845
 Holotype: ZFMK 21341, no paratypes
 Origin: "Provinz Popayan", Colombia

Sceloporidae

Liolaemus buergeri Werner, 1907
 Syntypes: ZFMK 26706–707
 Origin: Chile

Uromastycidae

Lacerta aegyptia Forskål, 1775
 Neotype: ZFMK 44216
 Origin: Egypt
 Current name: *Uromastix aegyptia*

Leiolepis belliana rubritaeniata Mertens, 1961
 Paratypes in ZFMK and SMF, holotype in SMF
 Origin: Thailand
 Current name: *Leiolepis rubritaeniata*

Leiolepis boehmei Darevsky & Kupriyanova, 1993
 Holotype: ZFMK 24651, paratypes in ZFMK and ZISP
 Origin: S Thailand

Leiolepis guentherpetersi Darevsky & Kupriyanova, 1993
 Paratypes in ZFMK, ZISP and NHRM, holotype in ZISP
 Origin: Vietnam

Leiolepis triploida Peters, 1971
 Paratypes in ZFMK, MCZ and ZMB, holotype in MCZ
 Origin: "Malayisch-thailändisches Grenzgebiet auf der Malayischen Halbinsel", Malaysia

Uromastix alfredschmidti Wilms & Böhme, 2000
 Holotype: ZFMK 24643, paratypes in MHNP, MHNG and NMW
 Origin: S Algeria

Uromastix geyri L. Müller, 1922
 Neotype: ZFMK 9230, paratypes in ZFMK and ZSM
 Origin: S Algeria

Uromastix leptieni Wilms & Böhme, 2000
 Holotype: ZFMK 52398, paratypes in BMNH
 Origin: United Arab Emirates
 Current name: *Uromastix aegyptia leptieni*

Uromastix yemenensis Wilms & Schmitz, 2007
Holotype: ZFMK 47861, paratypes in ZFMK and MTKD
Origin: Yemen

Uromastix yemenensis shobraki Wilms & Schmitz, 2007
Holotype: ZFMK 48681, paratypes in ZFMK and MHNG
Origin: Yemen
Current name: *Uromastix shobraki*

Agamidae

Acanthocercus guentherpetersi Largen & Spawls, 2006
Paratypes in ZFMK, BMNH and ZMG, holotype in BMNH
Origin: Eritrea

Agama agama mucosoensis Hellmich, 1957
Paratypes in ZFMK and ZSM, holotype in ZSM
Origin: Angola
Current name: *Agama mucosoensis*.

Agama chernovi Ananjeva, Peters & Rzhepakowsky, 1981
Paratypes in ZFMK, MTKD, ZMB and ZISP, holotype in ZISP
Origin: Tadzhikistan
Current name: *Laudakia bochariensis*.

Agama finchi Böhme, Wagner, Malonza, Lötters & J. Köhler, 2005
Paratypes in ZFMK and NMK, holotype in NMK
Origin: W Kenya

Agama lebretoni Wagner Barej & Schmitz, 2009 ("2007")
Holotype: ZFMK 87698, paratypes in ZFMK, MHNG and ZMB
Origin: Cameroon

Agama pakistanica Baig, 1989
Paratypes in ZFMK and PMNH
Origin: N Pakistan
Current name: *Laudakia pakistanica*.

Agama savignii Duméril & Bibron, 1837
Neotype: ZFMK 77470
Origin: Egypt
Current name: *Trapelus savignii*.

Agama stoliczkana altaica Peters, 1971
Paratypes in ZFMK, ZMB, ZISP, BIU-B and ZIH
Origin: Mongolia
Current name: *Laudakia stoliczkana altaica*.

Calotes (Bronchocela) intermedius Berthold, 1842
Syntypes: ZFMK 27099–101
Origin: Java, Indonesia
Current name: *Bronchocela jubata*.

Calotes nigriplicatus Hallermann, 2001 ("2000")
Holotype 26379, no paratypes
Origin: Moluccas, Indonesia

Gonocephalus denzeri Manthey, 1991
Holotype: ZFMK 50527, paratype in ZFMK
Origin: Sarawak, Malaysia
Current name: *Gonocephalus bornensis*.

Lacerta agama Linnaeus, 1758
Neotype: ZFMK 15222
Origin: Cameroon
Current name: *Agama agama*.

Lacerta stellio Linnaeus, 1758
Neotype: ZFMK 2063
Origin: Delos Id., Greece
Current name: *Laudakia stellio*.

Laudakia pakistanica auffenbergi Baig & Böhme, 1996
Holotype: ZFMK 54471, paratypes in ZFMK and PMNH
Origin: N Pakistan

Laudakia pakistanica khani Baig & Böhme, 1996
Holotype: ZFMK 54468 ("54469"), paratypes in ZFMK and PMNH
Origin: N Pakistan

Pseudocalotes ziegleri Hallermann, Nguyen Q.T., Orlov & Ananjeva, 2010
Paratypes in ZFMK, IEBR and ZISP, holotype in ZISP
Origin: Vietnam

Stellio caucasius triannulatus Ananjeva & Atayev, 1984
Paratypes in ZFMK and ZISP
Origin: Turkmenia
Current name: *Laudakia microlepis triannulata*.

Trapelus schmitzi Wagner & Böhme, 2007
Holotype: ZFMK 2590, no paratypes
Origin: Tchad

Chamaeleonidae

Bradypodion oxyrhinum Klaver & Böhme, 1988
Holotype: ZFMK 46406, paratypes in ZFMK and ZMUC
Origin: Tanzania
Current name: *Kinyongia oxyrhina*.

- Bradypodion tavetanum boehmei*** Lutzmann & Nečas, 2002
Holotype: 63373, paratypes in ZFMK
Origin: Kenya
Current name: *Kinyongia boehmei*.
- Calumma glawi*** Böhme, 1997
Holotype: ZFMK 62909, paratype in ZFMK
Origin: Madagascar
- Chamaeleo (Trioceros) balebicornutus*** Tilbury, 1998
Holotype: ZFMK 63049, paratypes in ZFMK
Origin: Ethiopia
Current name: *Trioceros balebicornutus*.
- Chamaeleo bitaeniatus*** Fischer, 1884
Syntype: ZFMK 66060, further syntypes in ZMH
Origin: Kenya
Current name: *Trioceros bitaeniatus*.
- Chamaeleo (africanus) calcaricarens*** Böhme, 1985
Paratypes in ZFMK and BMNH, holotype in BMNH
Origin: Ethiopia
Current name: *Chamaeleo calcaricarens*.
- Chamaeleo camerunensis*** L. Müller, 1909
Paralectotype in ZFMK, lectotype in ZSM
Origin: Cameroon
Current name: *Trioceros camerunensis*.
- Chamaeleo eisentrauti*** Mertens, 1968
Holotype: ZFMK 5781, paratypes in ZFMK, SMF and MHNG
Origin: Cameroon
Current name: *Trioceros eisentrauti*.
- Chamaeleo harennae fitchi*** Nečas, 2004
Holotype: ZFMK 81201, paratype in ZFMK
Origin: Ethiopia
Current name: *Trioceros harennae fitchi*.
- Chamaeleo laterispinis brookesiaeformis*** Böhme, 1982
Holotype: ZFMK 30785, no paratypes
Origin: Tanzania
Current name: *Trioceros laterispinis*.
- Chamaeleo marsabitensis*** Tilbury, 1991
Paratypes in ZFMK and BMNH
Origin: N Kenya
Current name: *Trioceros marsabitensis*.
- Chamaeleo narraioica*** Nečas, Modry & Slapeta, 2003
Holotype: ZFMK 73956, paratypes in ZFMK and NMP
Origin: N Kenya
Current name: *Trioceros narraioica*.
- Chamaeleo necasi*** Ullenbruch, Krause & Böhme, 2007
Holotype: ZFMK 76922, paratypes in ZFMK and MRAC
Origin: Togo
- Chamaeleo (Trioceros) ntunte*** Necas, Modry & Slapeta, 2005 ("2003")
Holotype: ZFMK 73963, paratypes in ZFMK
Origin: N Kenya
Current name: *Trioceros ntunte*.
- Chamaeleo quadricornis gracilior*** Böhme & Klaver, 1981
Holotype: ZFMK 15291, paratypes in ZFMK, MHNG and RMB
Origin: Cameroon
Current name: *Trioceros quadricornis gracilior*.
- Chamaeleo wiedersheimi perreti*** Klaver & Böhme, 1992
Paratypes in ZFMK, SMF and ZMB, holotype in MHNG
Origin: Cameroon
Current name: *Trioceros perreti*.
- Furcifer timoni*** Glaw, J. Köhler & Vences, 2009
Paratypes in ZFMK, ZSM and UADBA, holotype in ZSM
Origin: Madagascar
- Kinyongia asheorum*** Necas, Sindaco, Koreny, Kopečna, Malonza & Modry, 2009
Paratypes in ZFMK, MCC and NMK, holotype in MCC
Origin: Kenya
- Kinyongia vanheygeni*** Necas, 2009
Holotype: ZFMK 88383, lost before ever reaching ZFMK, no paratypes
Origin: Tanzania
- Rhampholeon (Rhinodigitum) acuminatus*** Mariaux & Tilbury, 2006
Paratypes in ZFMK, PEM and MHNG, holotype in MHNG
Origin: Tanzania
- Rhampholeon (Rhinodigitum) beraduccii*** Mariaux & Tilbury, 2006
Paratypes in ZFMK and MHNG, holotype in MHNG
Origin: Tanzania
- Rhampholeon moyeri*** Menegon, Salvidio & Tilbury, 2002
Paratypes in ZFMK, MTSN and NMZB, holotype in MZSN
Origin: Tanzania
- Rhampholeon uluguruense*** Tilbury & Emmrich, 1996
Paratypes in ZFMK, NMZB and ZMB, holotype in ZMB
Origin: Tanzania

***Trioceros hanangensis* Krause & Böhme, 2010**

Holotype: ZFMK 82369, paratypes in ZFMK

Origin: Tanzania

Diplodactylidae***Eurydactylodes agricolae* Henkel & Böhme, 2001**

Holotype: ZFMK 71022, paratype in ZFMK

Origin: New Caledonia

***Platydictylus vieillardii* Bavay, 1869**

Neotype: ZFMK 46981

Origin: New Caledonia

Current name: *Eurydactylodes vieillardii*.**Eublepharidae*****Goniurosaurus araneus* Grismer, Viets & Boyle, 1999**

Paratypes in ZFMK and HLMD, holotype in HLMD

Origin: Vietnam

***Goniurosaurus catbaensis* Ziegler, Nguyen Q.T., Schmitz, Stenke & Rösler, 2008**

Paratypes in ZFMK MHNG and VNUH, holotype in IEBR

Origin: Vietnam

Phyllodactylidae***Gecko fascicularis* Daudin, 1802**

Neotype: ZFMK 35631

Origin: Libya

Current name: *Tarentola mauritanica fascicularis*.***Phyllodactylus delsolari* Venegas, Townsend, C. Koch & Böhme, 2008**

Paratypes in ZFMK, UF and MUSM, holotype in UF

Origin: N Peru

***Phyllodactylus thompsoni* Venegas, Townsend, C. Koch & Böhme, 2008)**

Paratypes in ZFMK and MUSM, holotype in UF

Origin: N Peru

***Phyllopezus maranjonensis* Koch, Venegas & Böhme, 2006**

Paratypes in ZFMK and MHNSM, holotype in MHNSM

Origin: N Peru

***Tarentola annularis relicta* Joger, 1984**

Holotypus: ZFMK 25963, paratypes in BMNH, USNM and UZMK

Origin: S Sudan

***Tarentola boehmei* Joger, 1984**

Holotype: ZFMK 26133, paratypes in ZFMK, MNHN, CNHM and USNM

Origin: Morocco

***Tarentola boettgeri bischoffi* Joger, 1984**

Paratypes in ZFMK and SMF, Holotype in SMF

Origin: Selvagens Ids., Portugal

***Tarentola boettgeri hierrensis* Joger & Bischoff, 1983**

Holotype: ZFMK 24906, paratypes in ZFMK

Origin: Hierro, Canary Ids., Spain

***Tarentola darwini* Joger, 1984 ("1983")**

Holotype: ZFMK 37256, paratypes in BMNH and ZSM

Origin: Sao Tiago, Cape Verde Islands

***Tarentola delalandii hoggarensis* Werner, 1937**

Neotypus: ZFMK 36609

Origin: Algeria

Current name: *Tarentola ehippiata hoggarensis*.***Tarentola ehippiata senegambiae* Joger, 1984**

Holotype: ZFMK 19979, paratypes in ZFMK

Origin: Senegal

***Tarentola ehippiata nikolausi* Joger, 1984**

Holotype: ZFMK 38431, paratype in BMNH

Origin: NE Sudan

***Tarentola gomerensis* Joger & Bischoff, 1983**

Holotype: ZFMK 35207, paratypes in ZFMK, ZSM, NMW, ZMH and MNHN

Origin: Gomera Id., Canary Ids., Spain

***Tarentola mauritanica juliae* Joger, 1984**

Holotype: ZFMK 26132, paratypes in ZFMK, CNHM, ZSM and USNM

Origin: Morocco

***Tarentola neglecta geyri* Joger, 1984**

Holotype: ZFMK 2134, paratypes in ZFMK and BMNH

Origin: Algeria

***Tarentola parvicarinata* Joger, 1980**

Holotype: ZFMK 22157, paratypes in ZFMK, BMNH, MNHN, USNM, MHNG, LBUM, IFAN and NHMG

Origin: Mali

Sphaerodactylidae*Lepidoblepharis conolepis* Avila-Pires, 2001

Paratypes in ZFMK and MHNG, holotype in MHNG

Origin: Ecuador

Pristurus samhaensis Rösler & Wranik, 1999

Paratypes in ZFMK, MTKD and HLMD, holotype in MTKD

Origin: Socotra Id., Yemen

Pristurus schneideri Rösler, J. Köhler & Böhme, 2008

Holotype: ZFMK 86654, paratypes in ZFMK, HLMD and NHCY

Origin: Yemen

Pristurus obsti Rösler & Wranik, 1999

Paratypes in ZFMK, MTKD, HLMD and CPHR

Origin: Socotra Id., Yemen

Sphaerodactylus buergeri Werner, 1900

Holotype ZFMK 20712, no paratypes

Origin: Trinidad

Current name: *Sphaerodactylus molei*.† *Sphaerodactylus dommeli* Böhme, 1984

Holotype ZFMK 66238, paratype in SMNS

Origin: Dominican Republic

Tropicolotes wolfgangboehmei Wilms, Shobrak & Wagner, 2010

Holotype: ZFMK 43668, paratype in ZFMK

Origin: Saudi Arabia

Gekkonidae*Alsophylax (Altiphylax) boehmei* Szczerbak, 1991

Holotype: ZFMK 38773, paratype in ZFMK

Origin: N Pakistan

Current name: *Altiphylax stoliczkai*.*Cyrtodactylus consobrinus kinabaluensis* Malkmus, 1989

Holotype: ZFMK 46741, no paratype

Origin: Sabah, Malaysia

Current name: *Cyrtodactylus consobrinus*.*Cyrtodactylus cattienensis* Geißler, Nazarov, Orlov, Böhme, Trung, Nguyen Q.T. & Ziegler, 2009

Paratypes in ZFMK IEBR, VNUH, ZMMU and ZISP, holotype in IEBR

Origin: Vietnam

Cyrtodactylus cryptus Heidrich, Rösler, Vu, Böhme & Ziegler, 2007Holotype ZFMK 86037, paratypes in ZFMK and VNUH
Origin: Vietnam*Cyrtodactylus kotschy buchholzi* Beutler & Gruber, 1977

Holotype: ZFMK 9956, paratypes in ZFMK and NMW

Origin: Siphnos Id., Greece

Current name: *Cyrtopodion kotschy buchholzi*.*Cyrtodactylus kotschy schultzei* Beutler & Gruber, 1977

Paratypes in ZFMK, and ZSM, holotype in ZSM

Origin: Valaxa Id., Greece

Current name: *Cyrtopodion kotschy schultzei*.*Cyrtodactylus kotschy tinensis* Beutler & Frör, 1980

Paratypes in ZFMK, ZSM and ZMB, holotype in ZSM

Origin: Tinos Id., Greece

Current name: *Cyrtopodion kotschy tinensis**Cyrtodactylus phongnhakebangensis* Ziegler, Rösler, H.W. Herrmann & Than, 2003 ("2002")

Holotype: ZFMK 76193, paratypes in ZFMK, VNUH and MTKD

Origin: Vietnam

Cyrtodactylus pseudoquadrivirgatus Rösler, Vu, Nguyen Q.T., Ngo & Ziegler, 2008

Holotype: ZFMK 83895, paratypes in ZFMK, IEBR and UNS

Origin: Vietnam

Cyrtodactylus roesleri Ziegler, Nazarov, Orlov, Nguyen Q.T., Vu, Dang, Dinh & Schmitz, 2010

Holotype: ZFMK 89377, paratypes in ZFMK, IEBR, MNHG, VNUH, ZISP and ZMMU

Origin: Vietnam

Cyrtodactylus wayakonei Nguyen Q.T., Kingsada, Rösler, Auer & Ziegler, 2010

Paratypes in ZFMK, MTKD and NUOL, holotype in IEBR

Origin: Laos

Cyrtodactylus ziegleri Nazarov, Orlov, Nguyen N.S. & Ho (2008)

Paratypes in ZFMK, ITBCZ, ZISP and ZMMU, holotype in ZISP

Origin: Vietnam

Dixonius aaronbaueri Ngo & Ziegler, 2009

Paratypes in ZFMK, UNS and ZMB, holotype in UNS

Origin: Vietnam

Gekko canhi Rösler, Nguyen Q.T., Doan, Ho, Nguyen T.T. & Ziegler, 2010

Paratypes in ZFMK and VNMN, holotype in IEBR
Origin: Vietnam

Gekko grossmanni Günther, 1994

Paratypes in ZFMK and ZMB, holotype in ZMB
Origin: Vietnam

Gekko scientiadventura Rösler, Ziegler, Thanh, H.W. Herrmann & Böhme (2005 ("2004"))

Holotype: ZFMK 76198, paratypes in ZFMK and VNUH
Origin: Vietnam

Gekko siamensis Grossmann & Ulber, 1990

Paratypes in ZFMK, MTKD and pers. coll. W.G.
Origin: Thailand

Gekko ulikovskii Darevsky & Orlov, 1994

Paratypes in ZFMK and ZISP, holotype in ZISP
Origin: Vietnam
Current name: *Gekko badenii*.

Gymnodactylus gastropholis Werner, 1917

Holotype: 27094, paratypes in ZFMK, ZMH and CAS
Origin: Iran
Current name: *Cyrtopodion gastropholis*.

Gymnodactylus kotschy rumelicus L. Müller, 1939

Neotype: ZFMK 24327, paratype in ZFMK
Origin: Bulgaria
Current name: *Cyrtopodion kotschy rumelicus*.

Hemidactylus lamaensis Ullenbruch, Grell & Böhme, 2010

Holotype: ZFMK 77072, no paratypes
Origin: Benin

Hemidactylus pseudomuriceus Henle & Böhme, 2003

Holotype: ZFMK 42409, paratypes in ZFMK
Origin: Ivory Coast

Hemidactylus turcicus lavadeserticus Moravec & Böhme, 1997

Paratypes in ZFMK and NMP, holotype in NMP
Origin: Syria
Current name: *Hemidactylus lavadeserticus*.

Hemidactylus turcicus spinalis Buchholz, 1954

Holotype: ZFMK 33227, paratypes in ZFMK
Origin, Balearic Ids., Spain

Homopholis (Blaesodactylus) antongilensis Böhme & Meier, 1980

Holotype: ZFMK 21772, no paratypes
Origin: Madagascar
Current name: *Blaesodactylus antongilensis*.

Pachydactylus atorquatus Bauer, Barts & Hulbert, 2006
Paratypes in ZFMK, NMNW and TM, holotype in TM
Origin: Namibia

Pachydactylus capensis katanganus De Witte, 1953

Paratypes in ZFMK and IRSN
Origin: D.R. Congo

Paroedura bastardi ibityensis Rösler & Krüger, 1998

Paratypes in ZFMK, CPHR, MNHM and MTKD, holotype in MTKD
Origin: Madagascar
Current name: *Paroedura ibityensis*.

Paroedura lohatsara Glaw, Vences & K. Schmidt, 2001

Paratypes in ZFMK and ZSM, holotype in ZSM
Origin: Madagascar

Phelsuma berghofi Krüger, 1996

Holotype: ZFMK 62991, no registered paratypes
Origin: Madagascar

Phelsuma borbonica (agalegae) mater Meier, 1995

Holotype: ZFMK 57901, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Phelsuma borbonica*.

Phelsuma leiogaster isakae Meier, 1993

Holotype: ZFMK 54981, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Phelsuma modesta*.

Phelsuma leiogaster trautmanni Meier, 1993

Holotype: ZFMK 55122, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Phelsuma modesta*.

Phelsuma lineata elanthana Krüger, 1996

Holotype: ZFMK 47227, paratypes in ZFMK and ZSM
Origin: Madagascar

Phelsuma madagascariensis (madagascariensis) boehmei Meier, 1984

Holotype: ZFMK 32107, paratypes in ZFMK and ZSM
Origin: Madagascar
Current name: *Phelsuma madagascariensis boehmei*.

Phelsuma madagascariensis (sundbergi) ladiguensis Böhme & Meier, 1981

Holotype: ZFMK 33411, paratypes in ZFMK and ZSM
Origin: La Digue Id., Seychelles
Current name: *Phelsuma sundbergi ladiguensis*.

***Phelsuma nigristriata* Meier, 1984**

Holotype: 40317, paratypes in ZFMK and ZSM
Origin: Mayotte Id., Comoro Ids.

***Phelsuma pusilla hallmanni* Meier, 1989**

Holotype: ZFMK 54500, paratypes in ZFMK, SMF and ZSM
Origin: Madagascar

***Phelsuma quadriocellata lepida* Krüger, 1993**

Holotype: ZFMK 54500, paratypes in ZFMK, SMF and ZSM
Origin: Madagascar

***Phelsuma quadriocellata parva* Meier, 1983**

Holotype: ZFMK 19315, paratypes in ZFMK and ZSM
Origin: Madagascar

***Phelsuma robertmertensi* Meier, 1980**

Holotype: ZFMK 29900, paratypes in ZFMK and ZSM
Origin: Mayotte Id., Comoro Ids.

***Phelsuma seippi* Meier, 1987**

Holotype ZFMK 46702, no catalogued paratypes
Origin: Madagascar

***Phelsuma v-nigra anjouanensis* Meier, 1986**

Holotype: ZFMK 42077, paratypes in ZFMK and ZSM
Origin: Anjouan, Comoro Ids.

***Phelsuma v-nigra comoraegrandensis* Meier, 1986**

Holotype: ZFMK 42047, paratypes in ZFMK and ZSM
Origin: Grande Comore Id., Comoro Ids.

***Phelsuma v-nigra pasteuri* Meier, 1984**

Holotype: ZFMK 40310, paratypes in ZFMK and ZSM
Origin: Mayotte Id., Comoro Ids.
Current name: *Phelsuma pasteuri*.

***Stellio fimbriatus* J.G. Schneider, 1797**

Neotype: ZFMK 36503
Origin: Madagascar
Current name: *Uroplatus fimbriatus*.

***Uroplatus giganteus* Glaw, Kosuch, Henkel, Sound & Böhme, 2006**

Paratypes in ZFMK, ZSM and UADBA, holotype in ZSM
Origin: Madagascar

***Uroplatus henkeli* Böhme & Ibis, 1990**

Holotype ZFMK 48229, paratypes in ZFMK and ZSM
Origin: Madagascar

***Uroplatus sikorae sameiti* Böhme & Ibis, 1990**

Holotype: ZFMK 46005, paratypes in ZFMK, SMF and

ZSM

Origin: Madagascar

Amphisbaenidae***Lepidosternon infraorbitale* Berthold, 1859**

Holotype: ZFMK 26546, no paratypes

Origin: Bahia, Brazil

Current name: *Leposternon infraorbitale*.

Gymnophthalmidae***Echinosaura brachycephala* Köhler, Böhme & Schmitz, 2004**

Paratypes in ZFMK, MHNG and SMF, holotype in MHNG

Origin: Ecuador

Teiidae***Tupinambis teguixin buzioensis* P. Müller, 1969**

Holotype: ZFMK 89199, paratypes in ZFMK

Origin: Buzio Id., SE Brazil

Current name: *Tupinambis merianae buzioensis*.

***Tupinambis teguixin sebastiani* P. Müller, 1968**

Holotype: ZFMK 89193, paratypes in ZFMK

Origin: Sao Sebastiao Id., S Brazil

Current name: *Tupinambis merianae sebastiani*.

Lacertidae***Acanthodactylus busacki* Salvador, 1982**

Paratypes in ZFMK, BMNH, FMNH, CM, CAS, MNHN and EBD, holotype in BMNH

Origin: Morocco

***Algyroides marchi niethammeri* Buchholz, 1964**

Holotype: ZFMK 4541, no paratypes

Origin: Spain

Current name: *Algyroides marchi*.

***Eremias afghanistanica* Böhme & Szczerbak, 1991**

Holotype: ZFMK 8584, paratype in ZFMK

Origin: Afghanistan

***Eremias barbouri* K.P. Schmidt, 1927**

Paratypes in ZFMK and AMNH, holotype in AMNH

Origin: Mongolia

Current name: *Eremias argus barbouri*.

Eremias lalezharica Moravec, 1994

Paratypes in ZFMK and NMP, holotype in NMP

Origin: Iran

Eremias strauchi kopetdaghica Szczerbak, 1972

Paratypes in ZFMK and NMP, holotype in NMP

Origin: Turkmenia

Eremias velox suphani Basoglu & Hellmich, 1968

Paratypes in ZFMK, SZE and ZSM, holotype in SZE

Origin: Turkey

Current name: *Eremias suphani*.

Gallotia atlantica mahoratae Bischoff, 1985

Holotype: ZFMK 35034, paratypes in ZFMK

Origin: Fuerteventura Id., Canary Ids., Spain

Gallotia galloti eisentrauti Bischoff, 1982

Holotype: ZFMK 34800, paratypes in ZFMK and MNHN

Origin: Tenerife, Canary Ids., Spain

Gallotia galloti insulanagae Martín, 1985

Paratypes in ZFMK, ZLU and MCNSC, holotype in ZLU

Origin: Tenerife, Canary Ids., Spain

† ***Gallotia goliath bravoana*** Hutterer, 1985

Holotype: ZFMK 42392, paratypes in ZFMK

Origin: Late Pleistocene of La Gomera Id., Canary Ids., Spain

Current name: *Gallotia simonyi bravoana*.

Gallotia intermedia Hernández, Nogales & Martín, 2000

Paratypes in ZFMK (still to be received), DZUL, TFMC, holotype in DZUL

Origin: Tenerife, Canary Ids.

† ***Gallotia simonyi gomerana*** Hutterer, 1985

Holotype: ZFMK 42399, paratypes in ZFMK

Origin: Late Pleistocene of La Gomera Id., Canary Ids., Spain

Current name: *Gallotia simonyi bravoana*

Lacerta agilis brevicaudata Peters, 1958

Paratypes in ZFMK, ZMB, MM and ZISP, holotype in ZISP

Origin: Armenia

Lacerta agilis ioriensis Peters & Muskhelishvili, 1968

Paratypes in ZFMK, ZIT and ZMB, holotype in ZIT

Origin: Georgia

Lacerta bendimahiensis Schmidtler, Eiselt & Darevsky, 1994

Paratypes in ZFMK and ZSM, holotype in ZSM

Origin: Turkey

Current name: *Darevskia bendimahiensis*.

Lacerta cappadocica muhtari Eiselt, 1979

Paratypes in ZFMK, SZE, NMW, ZSM, ZMH, BMNH, FMNH and CAS

Origin: Turkey

Current name: *Apathya cappadocica muhtari*.

Lacerta cappadocica schmidtlerorum Eiselt, 1979

Paratypes in ZFMK, NMW and ZSM, holotype in ZSM

Origin: Turkey

Current name: *Apathya cappadocica schmidtlerorum*.

Lacerta cyanisparsa Bischoff & Schmidtler, 1999

Paratypes in ZFMK, SMF, ZSM and CAS, holotype in ZSM

Origin: Turkey

Current name: *Phoenicolacerta cyanisparsa*.

Lacerta derjugini abchasica Bischoff, 1982

Paratypes in ZFMK and MM, holotype in MM

Origin: Abchasia, Georgia

Current name: *Darevskia derjugini abchasica*.

Lacerta derjugini barani Bischoff, 1982

Paratypes: ZFMK, MM, SZE and CAS, holotype in MM

Origin: Georgia

Current name: *Darevskia derjugini barani*.

Lacerta derjugini boehmei Bischoff, 1982

Paratypes: ZFMK, MTKD, MM, ZMB, AMNH and US-NM, holotype in MTKD

Origin: Russia

Current name: *Darevskia derjugini boehmei*.

Lacerta derjugini orlowae Bischoff, 1984

Holotype: ZFMK 38047, paratypes in MTKD

Origin: Georgia

Current name: *Darevskia derjugini*.

Lacerta erhardii pachiae Wettstein, 1937

Paralectotypes in ZFMK and NMW, lectotype in NMW

Origin: Pachia Id., Cyclades, Greece

Current name: *Podarcis erhardii pachiae*.

Lacerta erhardii syrinae Wettstein, 1937

Paralectotypes in ZFMK and NMW, lectotype in NMW

Origin: Syrina Id., Cyclades, Greece

Current name: *Podarcis erhardii syrinae*.

Lacerta erhardii weigandi Gruber & Schultze-Westrum, 1971

Holotype: ZFMK 10914, paratypes in ZFMK and MTKD

Origin: Piperi Id., Northern Sporades, Greece
Current name: *Podarcis gaigeae weigandi*

Lacerta hieroglyphica Berthold, 1842
Syntypes: ZFMK 21220–221
Origin: W Turkey
Current name: *Podarcis siculus hieroglyphicus*.

Lacerta kulzeri petraea Bischoff & Müller, 1999
Holotype: ZFMK 65019, paratypes in ZFMK, JUMR, HUI and SMF
Origin: Jordan
Current name: *Phoenicolacerta kulzeri petraea*.

Lacerta lepida nevadensis Buchholz, 1963
Holotype 3581, paratypes in ZFMK
Origin: SE Spain
Current name: *Timon lepidus nevadensis*.

Lacerta lilfordi conejerae L. Müller, 1927
Neotype: ZFMK 11898
Origin: Conejera Id., Balearic Ids., Spain
Current name: *Podarcis lilfordi conejerae*.

Lacerta lilfordi jordansi L. Müller, 1927
Paratypes in ZFMK and ZSM, holotype (formerly in ZSM) destroyed in WW II
Origin: La Guardia, Balearic Ids., Spain
Current name: *Podarcis lilfordi jordansi*.

Lacerta muralis adolfjordansi Buchholz, 1962
Holotype: ZFMK 1854, paratypes in ZFMK and ZMB
Origin: Ananes Id., Cyclades, Greece
Current name: *Podarcis milensis adolfjordansi*.

Lacerta muralis var. coerulea Eimer, 1872
Syntypes: ZFMK 21322–333, further syntypes (University of Tübingen) seem to be lost.
Origin: Capri Id., Italy
Current name: *Podarcis siculus coeruleus*.

Lacerta oertzeni budaki Eiselt & Schmidtler, 1987 (“1986”)
Paratypes in ZFMK and NMW, holotype in NMW
Origin: Turkey
Current name: *Phoenicolacerta oertzeni budaki*.

Lacerta parvula adjarica Darevsky & Eiselt, 1980
Paratypes in ZFMK, ZISP, MHNG, MHNH, SMF, MNH and ZIK
Origin: Abchasia, Georgia
Current name: *Darevskia parvula adjarica*.

Lacerta peloponnesiaca lais Buchholz, 1960
Holotype: ZFMK 12115, paratypes in ZFMK, NMW, MM and MTKD
Origin: Peloponnesos, Greece
Current name: *Podarcis peloponnesiacus lais*.

Lacerta peloponnesiaca phryne Buchholz, 1960
Holotype: ZFMK 12263, paratypes in ZFMK and NMW
Origin: Peloponnesos, Greece
Current name: *Podarcis peloponnesiacus lais*.

Lacerta peloponnesiaca thais Buchholz, 1967
Holotype: ZFMK 12261, paratypes in ZFMK, NMW and MTKD
Origin: Peloponnesos, Greece
Current name: *Podarcis peloponnesiacus thais*.

Lacerta pityusensis caragolensis Buchholz, 1954
Holotype: ZFMK 12497, paratypes in ZFMK
Origin: Caragolé, Balearic Ids., Spain
Current name: *Podarcis pityusensis caragolensis*.

Lacerta pityusensis characae Buchholz, 1954
Holotype: ZFMK 12467, paratypes in ZFMK and MTKD
Origin: Characa Id., Balearic Ids., Spain
Current name: *Podarcis pityusensis characae*.

Lacerta pityusensis hortae Buchholz, 1954
Holotype: ZFMK 12410, paratypes in ZFMK and MTKD
Origin: Hort Id., Balearic Ids., Spain
Current name: *Podarcis pityusensis hortae*.

Lacerta pityusensis puercosensis Buchholz, 1954
Holotype: ZFMK 12411, paratypes in ZFMK and MTKD
Origin: Puercos Id., Balearic Ids., Spain
Current name: *Podarcis pityusensis puercosensis*.

Lacerta pityusensis purroigensis Buchholz, 1954
Holotype: ZFMK 12409, paratypes in ZFMK and MTKD
Origin: Purroige Id., Balearic Ids., Spain
Current name: *Podarcis pityusensis purroigensis*.

Lacerta pityusensis sabinae Buchholz, 1954
Holotype: ZFMK 12607, paratypes in ZFMK
Origin: Sabina Id., Balearic Ids., Spain
Current name: *Podarcis pityusensis sabinae*.

Lacerta pityusensis torretensis Buchholz, 1954
Holotype: ZFMK 12408, paratypes in ZFMK and MTKD
Origin: Torretas Id., Balearic Ids., Spain
Current name: *Podarcis pityusensis torretensis*.

Lacerta rudis bischoffi Böhme & Budak, 1977
Paratypes in ZFMK and SZE, holotype in SZE
Origin: NE Turkey
Current name: *Darevskia rudis bischoffi*.

Lacerta rudis chechenica Eiselt & Darevsky, 1991

Paratypes in ZFMK and ZISP, holotype in ZISP

Origin: Chechnya-Ingushetia, Russia

Current name: *Darevskia rudis chechenica*.***Lacerta sapphirina*** Schmidtler, Darevsky & Eiselt, 1994

Paratypes in ZFMK, ZDSM, CAS and NMW, holotype in ZSM

Origin: E Turkey

Current name: *Darevskia sapphirinica*.† ***Lacerta siculimelitensis*** Böhme & Zammit-Maempel, 1983

Paratypes in ZFMK and Coll. Zammit-Maempel, holotype in NMNHM

Origin: Malta

Current name: “*Lacerta*” (inc. sed.) *siculimelitensis*.***Lacerta trilineata pamphylica*** Schmidtler, 1975

Paratypes in ZFMK, ZSM and NMW, holotype in ZSM

Origin: S Turkey

Current name: *Lacerta pamphylica*.***Lacerta uzzelli*** Darevsky & Danielyan, 1977

Paratypes in ZFMK, CAS and ZISP, holotype in CAS

Origin: NE Turkey

Current name: *Darevskia uzzelli*.***Lacerta viridis guentherpetersi*** Rykena, Nettmann & Mayer, 2002

Paratypes in ZFMK, NMW, MTKD and ZMB, holotype in NMW

Origin: Evvia Id., Greece

Lacerta viridis paphlagonica Schmidtler, 1986

Paratypes in ZFMK and ZSM, holotype in ZSM

Origin: N Turkey

Nucras caesicaudata Broadley, 1972

Paratypes in ZFMK and UM, holotype in UM

Origin: Zimbabwe

Ophiops macrodactylus Berthold, 1842

Holotype: ZDFMK 21219, no paratypes

Origin: W Turkey

Current name: *Ophisops elegans macrodactylus*.***Podarcis dugesii jogeri*** Bischoff, Osenegg & Mayer, 1989

Holotype: ZFMK 44193, paratypes in ZFMK, SMF and BMNH

Origin: Porto Santo, Madeira Ids., Portugal

Current name: *Teira dugesii jogeri*.***Podarcis dugesii selvagensis*** Bischoff, Osenegg & Mayer, 1989

Holotype: ZFMK 41561, paratypes in ZFMK, SMF and BMNH

Origin: Selvagens Ids., Portugal

Current name: *Teira dugesii selvagensis*.***Podarcis lilfordi carbonerae*** Perez Mellado & Salvador, 1988

Holotype: ZFMK 11985, paratypes in ZFMK

Origin: Carbonera Id., Balearic Ids., Spain

Podarcis lilfordi codrellensis Perez Mellado & Salvador, 1988

Paratypes in ZFMK, and MNCN, holotype in MNCN

Origin: Codrell Id., Balearic Ids., Spain

Takydromus (Platyplacopus) kuehnei vietnamensis Ziegler & Bischoff, 1999

Holotype: ZFMK 70342, paratypes in ZFMK

Origin: Vietnam

Zootoca vivipara carniolica Mayer, Böhme, Tiedemann & Bischoff, 2000

Holotype: ZFMK 68438, paratypes in NMW and MCSNT

Origin: Slovenia

Zootoca vivipara louislantzi Arribas, 2009

Paratypes in ZFMK, MNCN, NMW and Coll. O. Arribas, holotype in MNCN

Origin: N Spain

Gerrhosauridae***Gerrhosaurus nigrolineatus ahlefeldti*** Hellmich & Schmelcher, 1956

Paratypes in ZFMK, ZMH and ZSM, holotype in ZSM

Origin: Angola

Zonosaurus brygooi Lang & Böhme, 1990

Holotype: ZFMK 46789, paratypes in ZFMK and ZSM

Origin: NW Madagascar

Zonosaurus madagascariensis haraldmeieri Brygoo & Böhme, 1985

Holotype: ZFMK 19335, paratypes in ZFMK and NMW

Origin: N Madagascar

Current name: *Zonosaurus haraldmeieri*.

Scincidae

Ablepharus budaki anatolicus Schmidtler, 1997

Paratypes in ZFMK, ZSM, NMW and ZDEU, holotype in ZSM

Origin: S Turkey

Ablepharus chernovi eiselti Schmidtler, 1997

Paratypes in ZFMK, ZSM, ZDEU and NMW

Origin: S Turkey

Chalcides chalcides mertensi Klausewitz, 1954

Paratypes in ZFMK, SMF and ZMB, holotype in SMF

Origin: Morocco

Current name: *Chalcides mertensi*.

Chalcides ghiarai Caputo & Mellado, 1992

Holotype: ZFMK 34549, paratypes in ZFMK, MZUF and Coll. Mellado

Origin: Chafarinas Ids., Morocco

Current name: *Chalcides parallelus*.

Chalcides simonyi Steindachner, 1891

Syntypes: ZFMK 53098–100, further syntypes in NMW

Origin: Fuerteventura, Canary Ids., Spain

Cophoscincopus greeri Böhme, Schmitz & Ziegler, 2000

Holotype: ZFMK 57599, paratypes in ZFMK, BMNH, FMNH, MNHN, RMNH, MCZ and ZMB

Origin: SE Guinea

Corucia zebrata alfredschmidti G. Köhler, 1997

Paratypes in ZFMK, SMF and MTKD, holotype in SMF

Origin: Bougainville, Solomon Ids., Papua New Guinea

Eugongylus haraldmeieri Böhme, 1976

Holotype: ZFMK 15888, paratype in ZFMK

Origin: New Caledonia

Current name *Geoscincus haraldmeieri*.

Eumecia anchietae wittei Laurent, 1964

Paratypes in ZFMK, IRSNB, RMNH and CM, holotype in IRSNB

Origin: D.R. Congo

Isopachys borealis Lang & Böhme, 1990

Holotype: 45709, paratypes in ZFMK

Origin: Thailand

Lankascincus taylori Greer, 1991

Paratypes in ZFMK, BMNH, CM, FMNH and USNM, holotype in BMNH

Origin: Sri Lanka

Leiolopisma greeri Böhme, 1979

Holotype: ZFMK 25456, no paratypes

Origin: New Caledonia

Current name: *Lioscincus greeri*.

Lepidothyris hinkeli Wagner, Böhme, Pauwels & Schmitz, 2009

Holotype: ZFMK 55701, paratypes in ZFMK, IRSNB and MHNG

Origin: Rwanda

Lepidothyris hinkeli joei Wagner, Böhme, Pauwels & Schmitz, 2009

Holotype: ZFMK 64410, paratypes in MHNG and IRSNB

Origin: People's Rep. Congo

Lygosoma boehmei Ziegler, Schmitz, Heidrich, Vu & Nguyen Q.T. (2007)

Holotype: ZFMK 86359, no paratypes

Origin: Vietnam

Lygosoma meleagris hackarsi De Witte, 1941

Paratypes in ZFMK and IRSNB

Origin: Kivu, D.R. Congo

Current name: *Leptosiaphos hackarsi*

Mabuya macrophthalma Mausfeld & Böhme, 2002

Holotype: ZFMK 71717, paratype in ZFMK

Origin: Java, Indonesia

Current name: *Eutropis macrophthalma*

Mabuya perroteti upembae De Witte, 1953

Paratypes in ZFMK, IRSNB, MCZ, BMNH, MZB/UM, HUI, CM, RMNH, holotype in IRSNB

Origin: D.R. Congo

Current name: *Trachylepis perroteti upembae*

Mabuya quinquetaeniata langheldi Sternfeld, 1917

Paratypes in ZFMK and ZMB, holotype in ZMB

Origin: Cameroon

Current name: *Trachylepis langheldi*

Mabuya quinquetaeniata pulcherrima De Witte, 1953

Paratypes in ZFMK, IRSNB, BMNH and CM, holotype in IRSNB

Origin: D.R. Congo

Current name: *Trachylepis pulcherrima*

Mabuya quinquetaeniata scharica Sternfeld, 1917

Paratypes in ZFMK and ZMB, holotype in ZMB

Origin: Chad

Current name: *Trachylepis quinquetaeniata scharica*.

***Panaspis chriswildi* Böhme & Schmitz, 1996**

Holotype: ZFMK 59537, no paratype

Origin: Cameroon

Current name: *Lacertaspis chriswildi*.***Panaspis ianthinoxantha* Böhme, 1975**

Holotype: ZFMK 15349, paratypes in ZFMK

Origin: NW Cameroon

Current name: *Leptosiaphos ianthinoxantha****Riopa erythroleuron* Mertens, 1968**

Holotype: ZFMK 5814, no paratypes

Origin: W Cameroon

Current name: *Leptosiaphos pauliani****Sphenomorphus aquaticus* Malkmus 1991**

Holotype: ZFMK 52214, paratypes in ZFMK

Origin: Sabah, Malaysia

Current name: *Tropidophorus beccarii*.***Sphenomorphus buenloicus* Darevsky & Nguyen V.S., 1983**

Paratypes in ZFMK and ZISP, holotype in ZISP

Origin: S Vietnam

***Sphenomorphus rufocaudatus* Darevsky & Nguyen V.S., 1983**

Paratypes in ZFMK and ZISP, holotype in ZISP

Origin: S Vietnam

Current name: *Scincella rufocaudata*.***Trachylepis dichroma* Günther, Whiting & Bauer, 2005**

Paratypes in ZFMK and ZMB, holotype in ZMB

Origin: Tanzania

***Trachylepis loluiensis* Kingdon & Spawls, 2010**

Holotype: ZFMK 89371, paratypes in ZFMK and in Coll. Kingdon

Origin: Lolui Id., Lake Victoria, Uganda

***Tropidophorus boehmei* Nguyen Q.T., Nguyen T.T., Schmitz, Orlov & Ziegler, 2010**

Paratypes in ZFMK, IEBR, VNMN, MHNG, ZISP, and VNUH, holotype in VNMN

Origin: N Vietnam

***Tropidophorus noggei* Ziegler, Vu & Bui, 2005**

Holotype: ZFMK 83668, paratypes in ZFMK and VNUH

Origin: Vietnam

***Typhlacontias punctatissimus brainei* Haacke, 1997**

Paratypes in ZFMK, TM and SMWN, holotype in TM

Origin: Namibia

Anguidae***Ophiodes intermedius* Boulenger, 1894**

Syntypes 26407, further syntypes in BMNH

Origin: Paraguay

***Ophisaurus apodus thracius* Obst, 1978**

Paratypes in ZFMK and MTKD, holotype in MTKD

Origin: Bulgaria

Current name: *Pseudopus apodus thracius*.**Varanidae*****Monitor doreanus* Meyer, 1874**

Neotype: ZFMK 52922

Origin: W Papua, Indonesia

Current name: *Varanus doreanus*.***Stellio salvator* Laurenti, 1768**

Neotype: ZFMK 22092

Origin: Sri Lanka

Current name: *Varanus salvator*.***Tupinambis indicus* Daudin, 1802**

Neotype: ZFMK 70650

Origin: Ambon Id., Moluccas, Indonesia

Current name: *Varanus indicus*.***Varanus boehmei* Jacobs, 2003**

Holotype: ZFMK 77837, paratypes in ZFMK and ZMA

Origin: Waigeo Id., W Papua, Indonesia

***Varanus caerulivirens* Ziegler, Böhme & Philipp, 1999**

Holotype: ZFMK 68874, paratypes in ZFMK and SMF

Origin: Halmahera Id., Moluccas, Indonesia

***Varanus cerambonensis* Philipp, Böhme & Ziegler, 1999**

Holotype: ZFMK 70617, paratypes in ZFMK, RMNH and ZMB

Origin: Seram Id., Moluccas, Indonesia

***Varanus cumingi samarensis* Koch, Gaulke & Böhme, 2010**

Holotype: ZFMK 64713, paratype in ZFMK

Origin: Samar Id. Philippines

***Varanus doreanus finschi* Böhme, Horn & Ziegler, 1994**

Holotype: ZFMK 26347, paratypes in ZFMK and ZMB

Origin: New Britain Id., Papua New Guinea

Current name: *Varanus finschi*.

Varanus juxtindicus Böhme, Philipp & Ziegler, 2002
Paratypes in ZFMK and ZMUC, holotype in ZMUC
Origin: Rennell Id., Solomon Ids.

Varanus lirungensis Koch, Arida, Schmitz, Böhme & Ziegler, 2009
Paratypes in ZFMK, MZB and ZMA, holotype in MZB
Origin: Salibabu Id., Talaud Ids., Indonesia

Varanus macraei Böhme & Jacobs, 2001
Holotype: ZFMK 74558, paratypes in ZFMK and SMF
Origin: Batanta Id., West Papua, Indonesia

Varanus melinus Böhme & Ziegler, 1997
Holotype: ZFMK 65737, paratypes in ZFMK
Origin: Sula Ids., Indonesia

Varanus palawanensis Koch, Gaulke & Böhme, 2010
Paratypes in ZFMK and SMF, BMNH, MNHN and ZMUC, holotype in SMF
Origin: Palawan, Philippines

Varanus panoptes horni Böhme, 1988
Holotype: ZFMK 19290, paratypes in ZFMK, ZMA and ZSM
Origin: W Papua, Indonesia

Varanus rainerguentheri Ziegler, Böhme & Schmitz, 2007
Holotype: ZFMK 85404, paratype in USNM
Origin: Halmahera Id., Moluccas, Indonesia

Varanus rasmusseni Koch, Gaulke & Böhme, 2010
Paratype in ZFMK, holotype in ZMUC
Origin: Tawi Tawi UID., Sulu Ids., Indonesia

Varanus yemenensis Böhme, Joger & Schätti, 1989
Holotype: ZFMK 46500, paratypes in ZFMK, MNHG and BMNH
Origin: Yemen

Typhlopidae

Rhinotyphlops debilis Joger, 1990
Holotype: ZFMK 33684, paratype in HLMD
Origin: Central African Republic
Current name: *Letheobia debilis*.

Rhinotyphlops episcopus Franzen & Wallach, 2002
Holotype: ZFMK 74224, paratypes in ZFMK and ZSM
Origin: E Turkey

Boidae

Boa carinata J.G. Schneider, 1801
Lectotype: ZFMK 35503
Origin: Ambon Id., Moluccas, Indonesia
Current name: *Candoia carinata*.

Pythonidae

Boa reticulata J.G. Schneider, 1801
Neotype: ZFMK 32378
Origin: Peninsular Malaysia
Current name: *Python reticulatus*.

Python bivittatus progschai Jacobs, Auliya & Böhme, 2009
Holotype: ZFMK 87841, paratypes in ZFMK
Origin: Sulawesi, Indonesia

Python reticulatus jampeanus Auliya, Mausfeld, Schmitz & Böhme, 2002
Holotype: ZFMK 73475, paratypes in ZFMK
Origin: Tanajampea Id., Indonesia

Python reticulatus saputrai Auliya, Mausfeld, Schmitz & Böhme, 2002
Holotype: ZFMK 73473, paratype in ZFMK
Origin: Selayar Id., Indonesia

Calamariidae

Calamaria thani Ziegler & Le, 2005
Holotype: ZFMK 82920, no paratypes
Origin: Vietnam

Colubridae

Ablabes tessellatus Berthold, 1859
Syntypes: ZFMK 36913–914
Origin: Suriname
Current name: *Mastigodryas boddaerti*.

Boiga bourreti Tillack, Ziegler & Le, 2004
Holotype: ZFMK 82921, no paratypes
Origin: Vietnam

Calamaria degenhardtii Berthold, 1845
Holotype: ZFMK 36828, no paratypes
Origin: "Provinz Popayan", Colombia
Current name: *Stenorrhina degenhardtii*.

***Coluber florulentus perreti* Schätti, 1988**

Paratypes in ZFMK, BMNH and USNM, holotype in MNHG

Origin: N Cameroon

Current name: *Platyceps florulentus perreti*.

***Coluber gemonensis gyarosensis* Mertens, 1968**

Holotype: ZFMK 4332, paratypes in ZFMK and SMF

Gyaros Id., Cyclades, Greece

Current name: *Hierophis viridiflavus*.

***Coluber najadum kalymnensis* B. Schneider, 1979**

Holotype: ZFMK 24933, paratype in Coll. B. Schneider

Origin: Kalymnos Id. Dodekanes, Greece

Current name: *Platyceps najadum kalymnensis*.

***Coluber rubriceps thracius* Rehak, 1985**

Paratypes in ZFMK and DZCHU, holotype in DZCHU

Origin: Bulgaria

Current name: *Platyceps collaris*.

***Coluber schmidtleri* Schätti & McCarthy, 2001**

Paratypes in ZFMK, BMNH, ZISP, holotype in FMNH

Origin: Iran

Current name: *Platyceps schmidtleri*.

***Dispholidus typus kivuensis* Laurent, 1955**

Paratypes in ZFMK, IRSNB, CM and RMNH, holotype in MRAC

Origin: Kivu, D.R. Congo

Current name *Dispholidus typus*.

***Dispholidus typus punctatus* Laurent, 1955**

Paratypes in ZFMK, IRSNB, CM, FMNH and RMNH, holotype in MRAC

Origin: D.R. Congo

Current name: *Dispholidus typus*.

***Eirenis barani* Schmidtler, 1988**

Paratypes in ZFMK, ZSM and NMW, holotype in ZSM

Origin: Turkey

***Eirenis barani bischofforum* Schmidtler, 1997**

Paratypes in ZFMK, ZMR and ZSM, holotype in ZSM

Origin: Turkey

***Eirenis levantinus* Schmidtler, 1993**

Paratypes in ZFMK, NMW, MHNG and SZE, holotype in ZSM

Origin: S Turkey

***Eirenis modestus cilicius* Schmidtler, 1993**

Paratypes in ZFMK, NMW, MNHG and ZSM, holotype in ZSM

Origin: S Turkey

***Eirenis punctatolineatus kumerloevae* Eiselt, 1970**

Holotype: ZFMK 5990, no paratypes

Origin: Akdamar Id., Lake Van, E Turkey

***Elaphe porphyracea laticincta* Schulz & Helfenberger, 1998**

Paratypes in ZFMK, MHNG and CAS, holotype MHNG

Origin: Peninsular Malaysia

Current name: *Oreocryptophis porphyraceus laticinctus*.

***Elaphe quatuorlineata parensis* Cattaneo, 1999**

Paratypes in ZFMK and in Coll. Cattaneo, holotype in Coll. Cattaneo

Origin: Paros Id., Cyclades, Greece

***Lycodon ruhstrati abditus* Vogel, David, Pauwels, Sumontha, Norval, Hendrix, Vu & Ziegler, 2009**

Holotype in ZFMK, paratypes in ZFMK, MNHN and ZMB

Origin: Vietnam

***Macrocalamus schulzi* Vogel & David, 1999**

Holotype: ZFMK 51159, paratype in ZFMK

Origin: Peninsular Malaysia

***Orthriophis taeniurus callicyanous* Schulz, 2010**

Holotype: ZFMK 81450, paratype in ZFMK

Origin: Vietnam

***Platyceps saharicus* Schätti & McCarthy, 2004**

Paratypes in ZFMK, BMNH, FMNH, HUJ, MCZ, MHNG, MZUF, NMW, and TAU, holotype in FMNH

Origin: Egypt

***Telescopus fallax christianus* Buchholz, 1955**

Holotype: ZFMK 9233, paratype in ZFMK

Origin: Christiana Id., Cyclades, Greece

Current name: *Telescopus fallax pallidus*.

***Zamenis andreana* Werner, 1917**

Syntype: ZFMK 31600, further syntype in CAS

Origin: Fars, Iran

Current name: "*Coluber*" (s.l.) *andreas*.

Lamprophiidae***Pseudoboodon boehmei* Rasmussen & Largen, 1992**

Paratypes in ZFMK and BMNH, holotype in BMNH

Origin: SW Ethiopia

Psammophiidae

Malpolon monspessulanus saharatlanticus Geniez, Cluchier & De Haan, 2006
Paratypes in ZFMK and BEV, holotype in MNHN
Origin: SW Morocco

Psammophis elegans univittatus Perret, 1961
Paratypes in ZFMK and MHNG, holotype in MHNG
Origin: N Cameroon

Psammophis sibilans rukwae Broadley, 1966
Paratypes in ZFMK and NMSR, holotype in NMSR
Origin: S Tanzania
Current name: *Psammophis rukwae*.

Psammophis sibilans trinasalis Werner, 1902
Lectotype: ZFMK 30503, paralectotypes in NMW
Origin: Namibia
Current name: *Psammophis leightoni trinasalis*.

Rhamphiophis acutus wittei Laurent, 1956
Paratypes in ZFMK, ASU, CM, FMNH, LSUMZ, IRSNB and NMZB/UM, holotype in MRAC
Origin: D.R. Congo
Current name: *Psammophylax acutus acutus*.

Dipsadidae

Apostolepis multicincta Harvey, 1999
Paratypes in ZFMK and NKA, holotype in NKA
Origin: Bolivia

Atractus paravertebralis Henle & Ehrl, 1991
Holotype: ZFMK 39705, no paratype
Origin: S Peru

Clelia langeri Reichle & Embert, 2005
Paratypes in ZFMK & NKA, holotype in NKA
Origin: Bolivia

Duberria ancoralis Berthold, 1842
Holotype: 36992, no paratypes
Origin: "Surinam" (in error)
Current name: *Farancia erythrogramma*.

Liophis miliaris intermedius Henle & Ehrl, 1981
Holotype: ZFMK 34243, paratypes in ZFMK
Origin: S Peru
Current name: *Liophis reginae*.

Psammophis molochina Berthold, 1846
Holotype: ZFMK 36923, no paratypes
Origin: "Brasilien"
Current name: *Philodryas nattereri*.

Homalopsidae

Enhydris gyii Murphy, Voris & Auliya, 2005
Holotype: ZFMK 65824, paratypes in ZFMK and ANSP
Origin: N Kalimantan, Indonesia

Natricidae

Amphiesma andreae Ziegler & Le, 2006
Holotype: ZFMK 83747, no paratypes
Origin: N Vietnam

Amphiesma leucomystax David, Bain, Nguyen Q.T., Orlov, Vogel Vu & Ziegler, 2007
Holotype: ZFMK 71702, paratypes in ZFMK, ZISP, MNHN, IEBR, AMNH and FMNH
Origin: Vietnam

Natrix megalcephala Orlov & Tuniyev, 1987
Paratypes in ZFMK and ZISP, holotype in ZISP
Origin: Abchasia, Georgia
Current name: *Natrix natrix scutata*.

Tropidonotus chinensis Berthold, 1859
Holotype: ZFMK 33443, no paratypes
Origin: "China"
Current name: *Sinonatrix annularis*.

Tropidonotus tigrinus Boie, 1826
Syntypes: ZFMK 8406–407
Origin: Japan
Current name: *Rhabdophis tigrinus*.

Elapidae

Elaps bertholdi Jan, 1859
Holotype: ZFMK 36402, no paratype
Origin: Australia
Current name: *Simoselaps bertholdi*.

Naja melanoleuca subfulva Laurent, 1955
Paratypes in ZFMK, IRSNB and FMNH, holotype in MRAC
Origin: D.R. Congo
Current name: *Naja melanoleuca*.

Naja nigricollis atriceps Laurent, 1955
Paratypes in ZFMK and IRSNB, holotype in MRAC
Origin: D.R. Congo
Current name: *Naja nigricollis*.

Naja nubiae Wüster & Broadley, 2003
Paratypes in ZFMK, BMNH, MHNG, MNHN and

NHRM, holotype in MRAC
Origin: Sudan

Hydrophiidae

Hydrophis sibauensis Rasmussen, Auliya & Böhme, 2001
Holotype: ZFMK 64891, paratypes in ZMUC and MZB
Origin: N Kalimantan, Indonesia

Viperidae: Viperinae

Bitis parviocula Böhme, 1977
Holotype: ZFMK 16803, no paratypes
Origin: Ethiopia

Cerastes boehmei Wagner & Wilms, 2010
Holotype: ZFMK 58054, no paratypes
Origin: Tunisia

Echis multisquamatus Tcherlin, 1981
Paratypes in ZFMK and ZISP, holotype in ZISP
Origin: Turkmenia
Current name: *Echis carinatus multisquamatus*.

Vipera barani Böhme & Joger, 1983
Holotype: ZFMK 35444, no paratypes
Origin: N Turkey

Vipera wagneri Nilson & Andrén, 1984
Holotype: ZFMK 32495, no paratypes
Origin: NW Iran
Current name: *Montivipera wagneri*.

Viperidae: Crotalinae

Agkistrodon halys boehmei Nilson, 1983
Holotype: ZFMK 8648, no paratype
Origin: Afghanistan
Current name: *Gloydus halys boehmei*.

Triceratolepidophis sieversorum Ziegler, H.W. Hermann, David, Orlov & Pauwels, 2000
Holotype: ZFMK 71262, no paratype
Origin: Vietnam
Current name: *Protobothrops sieversorum*.

Trigonocephalus schlegelii Berthold, 1845
Holotype: ZFMK 32554, no paratypes
Origin: "Provinz Popayan", Colombia
Current name: *Bothriechis schlegelii*.

Trimeresurus fucatus Vogel, David & Pauwels, 2004
Paratypes in ZFMK, BMNH, IRSNB, MNHN, QSMI, ZRC, ZSM and Coll. G. Vogel, holotype in MNHN
Origin: Thailand

Trimeresurus gumprechtii David, Vogel, Pauwels & Vidal, 2002

Paratypes in ZFMK, MNHN, PSUAA, and RFI, holotype in MNHN

Origin: Thailand

Trimeresurus nebularis Vogel, David & Pauwels, 2004
Paratypes in ZFMK, IRSNB, MNHN, ZRC and Coll. G. Vogel

Origin: Thailand

Trimeresurus vogeli David, Vidal & Pauwels, 2001

Paratype in ZFMK, holotype in MNHN

Origin: Thailand

CROCODYLIA

Crocodylidae

Crocodylus porosus J.G. Schneider, 1801
Paralectotypes: ZFMK 40955–956, lectotype in ZMB
Origin: Java, Indonesia.

Acknowledgements. I am indebted to my colleagues Michael Franzen and Frank Glaw (ZSM) as well as Jörn Köhler (HLMD) and Thomas Ziegler (Cologne Zoo), and also Philipp Wagner and Nguyen Quang Truong (currently ZFMK) for reading parts of the type list. Cordial thanks are again due to Ursula Bott (ZFMK) for her constant help and cooperation, especially in regard to ZFMK's herpetological collection and the type catalogue.

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Catalogue of type specimens of fishes in the Zoologisches Forschungsmuseum Alexander Koenig, Bonn

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Abstract. Here we provide a checklist of type specimens housed in the fish collection of the Zoologisches Forschungsmuseum Alexander Koenig, Bonn (ZFMK). The catalogue includes type locality and sampling data, lists type material of the taxa represented in ZFMK deposited in other collections, provides remarks on the current status of the material, and covers the relevant bibliography. In total, 126 species are represented, 80 of these by holo- or lectotypes.

Key Words. Type specimens, taxonomy, fish, ichthyology, type catalogue, ZFMK Bonn.

INTRODUCTION

The ichthyology section of the Zoologisches Forschungsmuseum Alexander Koenig was founded in 1954, and currently contains more than 41,000 fish specimens representing > 1500 species. The latter number is however based on the current state of ongoing digitalization, and is most likely a rather serious underestimation of the collection's inventories. Among other material, the collection contains material collected by the museum founder A. Koenig since 1879, specimens obtained from South America by the institute's first fish curator K. H. Lüling, collections of Indian fish from marine and brackish habitats collected by G. A. von Maydell in the 1950s, and important collections of freshwater fish from Central Vietnam collected by J. Freyhof and colleagues at the beginning of the last decade. The name-bearing types in the ichthyology section partially reflect the collection focus, composed in prominent parts by e.g. Asian loaches, South American characins, and catfishes from both regions. The ZFMK collection also houses substantial numbers of killifish types from Africa and South America, most designated either by L. Seegers or R. Sonnenberg.

The present type catalogue includes, besides of taxon names and collection references, in brief some crucial data from the original descriptions and the current status at time of publication; these include also additional type material housed in other collections.

MATERIAL AND METHODS

The order of fish families in the present catalogue widely follows Eschmeyer's (1998) "Catalog of Fishes". Within families, species appear in alphabetical order of the genus as used in the original description. If not stated otherwise, taxon names are valid as originally published, widely based on the online database of the "Catalog of Fishes" (<http://research.calacademy.org/ichthyology/catalog/fishcatmain.asp>) in November 2010. The original reference is provided in brief for each single taxon. As far as available in the description, the present catalogue includes besides of collection numbers also data on size, sex, locality (in increasing order, i.e. from habitat data to country name), coordinates, collection date and collector(s). In addition, we included for fish taxa represented by types in ZFMK also the relevant data of other type material, including collection and number (if available), and in most cases the same relevant data as outlined above. If not stated otherwise, size data refer to mm standard length. Numbers in parentheses following collection numbers refer to the number of specimen in the respective series or lot. Data on sex refer to the composition of individuals as originally published; specific data describing the amount of males and females within certain series are not included. As far as possible, locality data were translated to English; coordinates are provided as they appear in the original description.

Abbreviations for museum collections used:

AM = Albany Museum, Grahamstown, Zambia
 AMNH = American Museum of Natural History, New York, USA
 AM PF = Albany Museum, Grahamstown, Zambia
 ANSP = Academy of Natural Sciences, Philadelphia, USA
 BM = British Museum (Natural History), London, UK
 BMNH = Natural History Museum (formerly British Museum (Natural History)), London, UK
 CAS = California Academy of Sciences, San Francisco, USA
 CAZ = Collection Axel Zarske, Dresden, Germany
 CENAREST = Research station in Batoke, Cameroon
 CIRA UTB = Centro de Investigación de Recursos Acuáticos, Universidad Técnica del Beni, Trinidad, Bolivia
 CMK = Collection Maurice Kottelat, Cornol, Switzerland
 FMNH = Field Museum of Natural History, Chicago, USA
 INPA = Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil
 IRET = Institut de Recherche en Ecologie Tropicale, Libreville, Gabon
 IRSNB = Institut royal des Sciences naturelles de Belgique, Bruxelles, Belgium
 IBTS = Taxonomy Research Group, Research Centres in Biology Field, University of Bucharest, Tr. Savulescu, Bucharest, Romania (formerly: ISBB)
 IZUA = Instituto de Zoología, Universidad Austral de Chile, Valdivia, Chile
 KU = Museum of Natural History, Lawrence, Kansas, USA
 MCP = Pontificia Universidade Católica do Rio Grande do Sul, Museu de Ciências e Tecnologia, Rio Grande do Sul, Porto Alegre, Brazil
 MCZ = Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA
 MGAB = Muzeul de Istorie Naturala "Grigore Antipa", Bucharest, Romania
 MHNG = Muséum d'Histoire naturelle de Genève, Geneva, Switzerland
 MNHN(P) = Muséum national d'Histoire naturelle, Paris, France
 MNHNC = Museo Nacional de Historia Natural, Santiago, Chile
 MRAC = Musée Royal de l'Afrique Centrale, Tervuren, Belgium
 MTD = Staatliche Naturhistorische Sammlungen, Museum für Tierkunde, Dresden, Germany
 MTD F = Staatliche Naturhistorische Sammlungen, Museum für Tierkunde, Dresden, Germany
 MZUSP = Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil
 NHMW = Naturhistorisches Museum, Vienna, Austria
 NMW = Naturhistorisches Museum Wien, Vienna, Austria

NRM = Naturhistoriska riksmuseet, Stockholm, Sweden
 RMNH = Rijksmuseum van Natuurlijke Historie, now Naturalis - National Natuurhistorisch Museum, Leiden, the Netherlands
 RUSI = J.L.B. Smith Institute of Ichthyology, Grahamstown, South Africa
 SMF = Senckenberg Museum, Frankfurt/Main, Germany
 UMMZ = Museum of Zoology, University of Michigan, Ann Arbor, USA
 USNM = National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA
 ZFMK = Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany
 ZMA = Zoologisch Museum, Universiteit van Amsterdam, the Netherlands
 ZMB = Zoologisches Museum der Humboldt-Universität, Berlin, Germany
 ZMH = Zoologisches Museum Hamburg, Germany
 ZMM = Zoological Museum, Moscow State University, Moscow, Russia
 ZRC = Zoological Reference Collection, National University of Singapore, Singapore
 ZSM = Zoologische Staatssammlung, Munich, Germany

KNERIIDAE

Kneria rukwaensis Seegers, 1995
 Ichthyol Explor Freshwaters 6: 109

Paratypes: ZFMK 17477–17491 (15), 28.0–45.5 mm, 32 km northwest of Tunduma on road to Sumbawanga, affluent of the Momba River, Chiwanda River at Chiwanda, western Lake Rukwa drainage, Mbeya Region, western Tanzania, 09°10'S 32°34'E, 29 Jul 1992, U. Renninger & L. Seegers.

Type material in other collections: Holotype: ZMB 32352, male, 50.1 mm, same data as ZFMK 17477–17491; Paratypes: ZMB 32353 (3), 33.7–52.9 mm, same data as holotype; ZMB 32354 (5), 32.7–62.3 mm, same locality, 30 Jun 1989, U. Renninger & L. Seegers; ZMH 8400 (11), 19.4–42.6 mm, small brook, crossing road from Tunduma to Sumbawanga 58 km northwest of Tunduma, western Lake Rukwa drainage, Mbeya Region, western Tanzania, 30 Jul 1989, U. Renninger & L. Seegers; ZMB 32355 (2), 46.0–51.5 mm; BMNH 1993.3.29: 7–10 (4), 27.0–38.3 mm, same locality, 27 Jul 1991, U. Renninger & L. Seegers; MRAC 93-38-P-1–11 (11), 21.0–52.3 mm, same locality, 29 Jul 1992, L. Seegers; ZMH 8501 (11), 22.5–63.0 mm, Sau River at Kisumba, 20 km south of Sumbawanga on road to Mbala, Kalambo drainage, Rukwa Region, western Tanzania, 24 Jul 1993, L. Seegers; BMNH 1993.3.29: 1–6 (6), 17.8–36.7 mm, Luiche River, some km north of Sumbawanga near junction Sum-

bawanga-Mbala and Sumbawanga-Mpanda, western Lake Rukwa drainage, Rukwa Region, western Tanzania, 2 Jul 1989, U. Renninger & L. Seegers; MRAC 93-38-P-12 (1), 34.0 mm, Mfwizi River, 110 km north of Sumbawanga on road to Mpanda, northwestern Lake Rukwa drainage, Rukwa Region, western Tanzania, 2 Jul 1989, U. Renninger & L. Seegers; MRAC 191042 (1), 39.9 mm, Saisi River at Lumi confluence, western Lake Rukwa drainage, Mbala distr., northern Zambia, 15 Oct 1967, H. Matthes; MRAC 93-38-P-13–27 (15), 17.5–61.1 mm, Sau River at Kisumba, 20 km south of Sumbawanga on road to Mbala, Kalambo drainage, Tanganyika basin, Rukwa Region, western Tanzania, 24 Jul 1993, L. Seegers; MRAC 93-38-P-28–38 (11), 17.0–35.0 mm, Pala River, 55 km south of Sumbawanga at the road to Mbala, Kalambo drainage, Tanganyika basin, Rukwa Region, western Tanzania, 24 Jul 1993, L. Seegers; MRAC 93-38-P-39–46 (8), 21.2–29.0 mm, Kanye River, 61 km south of Sumbawanga on road to Mbala, Kalambo drainage, Tanganyika basin, Rukwa Region, western Tanzania, 24 Jul 1993, L. Seegers; MRAC 93-38-P-47–49 (3), 23.9–29.0 mm, brook, 5 km north of the Tanzania/Zambia border on road from Mbala to Sumbawanga, Kalambo drainage, Tanganyika basin, Rukwa Region, western Tanzania, 24 Jul 1993, L. Seegers; RUSI uncat. (26), 16.9–35.4 mm, brook, Luiche affluent, at the road from Muze to Sumbawanga, 4 km before reaching the main road from Mpanda to Sumbawanga at Ntendo, Lake Rukwa drainage, Rukwa Region, western Tanzania, 23 Jul 1993, L. Seegers; RUSI 50340 (2), 48.5–52.4 mm, Mfwizi River, 142 km south of Mpanda on road from Mpanda to Sumbawanga, Lake Rukwa drainage, Rukwa Region, western Tanzania, 6 Jul 1994, L. Seegers; ZMA 109763 (2), 32.9–36.0 mm, Mwandwisi brook near Chipanda, Lake Rukwa drainage, Abercorn-District (=Mbala), northern Zambia, 30 Jul 1966, H. Matthes; ZMA 109764 (11), 14.2–23.3 mm, Mwaa-Rivulet near Kawimbi, Lake Rukwa drainage, Abercorn-District (=Mbala), northern Zambia, 5 Jul 1966, H. Matthes; ZMA 109765 (437), 17.0–45.2 mm, Lumi River near Kawimbi, Lake Rukwa drainage, Abercorn-District (=Mbala), northern Zambia, 30 Jul 1966, H. Matthes.

CYPRINIDAE

Rashora rubrodorsalis Donoso-Büchner & Schmidt, 1997
Z Fischk 4: 90

Paratypes: ZFMK 18459–18460 (2), Cha Am, 208/209 km main road 4, Thailand, Nov 1989, R. Donoso-Büchner; ZFMK 18461 (1), Cha Am/Hua Hin, 212 km main road 4, Thailand, Nov 1989, A. Waser.

Type material in other collections: Holotype: ZMB 32549, same data as ZFMK 18459–18460; Paratypes: ZMB 32550–32551, same data as ZFMK 18461; ZMB 32420–32422 (3), Nam Ngum Dam reservoir, 20 km northeast of Vientiane, Laos, K. Lung & J. Töpfer [no collection date provided].

Tanichthys micagemmae Freyhof & Herder, 2001
Ichthyol Explor Freshwaters 12: 216

Holotype: ZFMK 39098, 18.8 mm, stream Bau Dung, a tributary of River Ben Hai, Quang Binh Prov., Vietnam, 17°07'24"N 106°58'12"E, 5 Apr 2000, J. Freyhof & F. Herder.

Paratypes: ZFMK 39099–39118 (20), 13.4–23.1 mm, same data as holotype.

BALITORIDAE

Hemimyzon ecdyonuroides Freyhof & Herder, 2002
Ichthyol Explor Freshwaters 13: 54

Holotype: ZFMK 22136, 41.7 mm, River Pako about 50 km north of Kontum, Kontum Prov., Vietnam, 14°39.60'N 107°46.98'E, 22 Feb 1999, J. Freyhof & D. V. Serov.

Paratypes: ZFMK 22137–22146 (10), 32.6–42.1 mm, same data as holotype.

Type material in other collections: CMK 16011 (4), 38.1–41.5 mm, same data as holotype.

Nemacheilus banar Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 135

Holotype: ZFMK 28588, 65.8 mm, middle River Pako about 50 km north of Kontum, Kontum Prov., Vietnam, 14°36.60'N 107°46.98'E, 22 Feb 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 26528–26589 (60), 22.1–77.7 mm, same data as holotype; ZFMK 26274–26278 (5), 38.1–43.4 mm, River Dakabla at Kontum, Kontum Prov., Vietnam, 14°20.73'N 108°00.03'E, 20 Feb 1999, J. Freyhof & D. Serov; ZFMK 26322–26324 (3), 38.4–42.4 mm, River Dakpne 30 km northeast of Kontum, Kontum Prov., Vietnam, 14°30.35'N 108°14.92'E, 20 Feb 1999, J. Freyhof & D. Serov; ZFMK 28647, Stream Pako 15 km west of Kontum, Kontum Prov., Vietnam, 14°23.23'N 107°54.15'E, 23 Feb 1999, J. Freyhof & D. Serov; ZFMK 26590, 64.5 mm, Stream Iasia 25 west of Kontum, Kon-

tum Prov., Vietnam, 14°23.63'N 107°48.64'E, J. Freyhof & D. Serov; ZFMK 26591-26592 (2), 69.6-80.4 mm, River Ba at An Khe, Gia Lai Prov., Vietnam, 13°57.23'N 108°39.15'E, 24 Feb 1999, J. Freyhof & D. Serov.

Type material in other collections: CMK 16009 (5), 34.1-68.5 mm, same data as holotype.

Nemacheilus cleopatra Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 138

Holotype: ZFMK 27155, 68.9 mm, River Sol near Plao Ganong, about 60 km south of Pleiku, Province Gia Lai, Vietnam, 13°31.82'N 108°18.63'E, 19 Feb 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 20656-26081 (25), 38.4-75.3 mm, same data as holotype.

Type material in other collections: CMK 16023 (3), 44.2-60.8 mm, same data as holotype.

Schistura antennata Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 140

Holotype: ZFMK 27934, 73.6 mm, stream at Son Kim, Ha Tinh, Prov., Vietnam, 18°24.25'N 105°11.10'E, 11 Apr 2000, J. Freyhof, F. Herder & D. Serov.

Paratypes: ZFMK 27935-27941 (7), 33.7-70.3 mm, same data as holotype;

Remarks: Additional type material in other collections: CMK 16673 (3), 50.8-66.5 mm, same data as holotype.

Schistura bachmaensis Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 143

Holotype: ZFMK 27942, 44.3 mm, Stream Suoi Voi Strom at Thua Luu, 55 km south of Hue, Thua Thien Hue Prov., Vietnam, 16°14.58'N 107°59.39'E, 19 Mar 2000, J. Freyhof, F. Herder & D. Serov.

Paratype: ZFMK 27942 (1), 49.0 mm, same data as holotype.

Type material in other collections: CMK 16674 (1), 56.6 mm, same data as holotype.

Schistura carbonaria Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 145

Holotype: ZFMK 26593, 57.3 mm, stream Khe Vin An at Nam Dong village about 40 km south of Hue, Thua Thien Hue Prov., Vietnam, 16°11.58'N 107°43.76'E, 15 Mar 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 26594-26653 (60), 25.8-58.5 mm, same data as holotype; ZFMK 26654-26664 (11), 48.8-60.8 mm, River Rao Nho at Hong Ha village about 50 km west of Hue, Thua Thien Hue Prov., Vietnam, 16°17.35'N 107°21.59'E, 16 Mar 1999, J. Freyhof & D. Serov; ZFMK 26665-26669 (5), 48.1-50.6 mm, stream Mau about 30 km west of Hue, Thua Thien Hue Prov., Vietnam, 16°19.97'N 107°25.29'E, 16 Mar 1999, J. Freyhof & D. Serov.

Schistura dalatensis Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 150

Holotype: ZFMK 23906, 87.2 mm, River Dai Tan about 30 km south of Da Lat, Lam Dong Prov., Vietnam, 11°46.64'N 108°19.28'E, 21 Jan 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 23641-23652 (12), 29.8-49.1 mm, small stream running to River Da Dung south of Da Lat, Prov. Lam Dong, Vietnam, 11°46.86'N 108°25.04'E, 19 Jan 1999, J. Freyhof & D. Serov; ZFMK 23759-23761 (3), 41.7-48.0 mm, River Da Dung 25 km south of Da Lat, Lam Dong Prov., Vietnam, 11°45.48'N 108°23.78'E, 21 Jan 1999, J. Freyhof & D. Serov.

Type material in other collections: CMK 15999 (8), 30.8-51.8 mm, 11°46.86'N 108°25.04'E, same data as ZFMK 23641-23652.

Schistura huongensis Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 155

Holotype: ZFMK 26810, 57.2 mm, stream Keh Vinh An at Nam Dong village about 40 km south of Hue, Thua Thien Hue Prov., Vietnam, 16°11.58'N 107°43.76'E, 15 Mar 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 26811-26826 (16), 28.2-55.5 mm, same data as holotype; ZFMK 26827-26848 (22), 30.8-56.9 mm, River Rao Nho at Hong Ha village about 50 km west of Hue, Thua Thien Prov., Vietnam, 16°17.35'N 107°21.59'E, 16 Mar 1999, J. Freyhof & D. Serov; ZFMK 26670-26672 (3), 51.0-54.5 mm, stream Mau about 30 km west of Hue, Thua Thien Hue Prov., Vietnam, 16°19.97'N 107°25.29'E, 16 Mar 1999, J. Freyhof & D. Serov; ZFMK 38460-38678 (19), stream running to River Huong, 40 km west of highway No. 1, Thua

Thien Hue Prov., Vietnam, 16°06.81'N 107°38.81'E, 19 Mar 2000, J. Freyhof, F. Herder & D. Serov.

Type material in other collections: CMK 16014 (4), 47.7–51.9 mm, same data as ZFMK 26811–26826.

Schistura kontumensis Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 160

Holotype: ZFMK 26687, 55.2 mm, stream Iasia about 25 km west of Kontum, Kontum Prov., Vietnam, 14°23.63'N 107°48.64'E, 23 Feb 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 26688–26747 (60), 23.0–55.0 mm, same data as holotype.

Type material in other collections: ZSM 28869 (12), 39.7–51.4 mm, same data as holotype.

Schistura namboensis Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 163

Holotype: ZFMK 24094, 55.3 mm, small stream at Ea Nuol about 20 km northwest of Buon Ma Thout, Dac Lac Prov., Vietnam, 12°41.58'N 107°57.74'E, 26 Jan 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 24095–24177 (83), 30.5–60.8 mm, same data as holotype.

Schistura psittacula Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 170

Holotype: ZFMK 27015, 63.1 mm, middle River Cam Lo about 20 km west of Dong Ha, Quang Tri Prov., Vietnam, 16°47.00'N 106°53.86'E, 14 Mar 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 27016–27110 (95), 18.9–62.1 mm, same data as holotype; ZFMK 38371–38400 (30), 22.3–63.8 mm, stream running to River Cam Lo, 25 km west of Dong Ha, Quang Tri Prov, Vietnam, 16°45.71'N 106°51.63'E, 18 Mar 2000, J. Freyhof, F. Herder & D. Serov.

Type material in other collections: ZSM 28867 (10), 37.3–56.4 mm, same data as holotype; CMK 16013 (10), 32.1–55.9 mm, same data as holotype.

Schistura sokolovi Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 172

Holotype: ZFMK 27116, 67.7 mm, River Azun about 30 km east of Pleiku, a confluent to River Ba, Gia Lai Prov., Vietnam, 14°02.34'N 108°21.07'E, 24 Feb 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 27117–27122 (6), 55.8–67.0 mm, same data as holotype; ZFMK 27123–27149 (27), 32.0–95.3 mm, stream at Kon Ha Nung about 50 km north of An Khe, a confluent to River Ba, Gia Lai Prov, Vietnam, 14°20.45'N 108°34.81'E, 25 Feb 1999, J. Freyhof & D. Serov.

Type material in other collections: ZSM 28868 (6), 40.4–88.1 mm, same data as ZFMK 27123–27149; CMK 16012 (5), 45.8–87.6 mm, same data as ZFMK 27123–27149.

Schistura susannae Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 179

Holotype: ZFMK 28382, 44.5 mm, stream Mong Mo south of Hai Van Pass at national highway No. 1, Quang Nam Danang Prov., Vietnam, 16°09.67'N 108°07.73'E, 14 Mar 2000, J. Freyhof, F. Herder & D. Serov.

Paratypes: ZFMK 28383–28412 (30), 16.7–51.8 mm, same data as holotype.

Type material in other collections: CMK 16333 (6), 32.8–42.6 mm, same data as holotype.

Schistura thanho Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 182

Holotype: ZFMK 21047, 76.9 mm, River Vinh Thanh, about 65 km northwest Quy Nhon, Binh Dinh Prov., Vietnam, 14°16.19'N 108°45.69'E, 23 Mar 1999, J. Freyhof & D. Serov.

Paratypes: ZFMK 21048–21069 (22), 36.7–82.5 mm, same data as holotype; ZFMK 21074 (1), 42.8 mm, stream Xem, a confluent to River Vinh Tanh, about 50 km northwest of Quy Nhon, Binh Dinh Prov, Vietnam, 14°05.00'N 108°47.01'E, 23 Mar 1999, J. Freyhof & D. Serov.

Type material in other collections: CMK 16019 (3), 43.1–70.8 mm, same data as holotype.

Schistura yersini Freyhof & Serov, 2001
Ichthyol Explor Freshwaters 12: 186

Holotype: ZFMK 23579, 63.2 mm, small stream running to River Da Dung south of Da Lat, Lam Dong Prov., Vietnam, 11°46.86'N 108°25.04'E, 19 Jan 1999, J. Freyhof & D. V. Serov.

Paratypes: ZFMK 23580–23640 (45), 29.6–65.0 mm, same data as holotype; ZFMK 23576–23577 (2), 30.9–31.3 mm, stream Suoi Vang north of Da Lat, Lam Dong Prov., Vietnam, 11°59.53'N 108°21.95'E, 19 Jan 1999, J. Freyhof & D. V. Serov; ZFMK 23661–23684 (24), 30.7–58.5 mm, stream running to River Dai Tan south of Da Lat, Lam Dong Prov., Vietnam, 11°46.26'N 108°19.16'E, 20 Jan 1999, J. Freyhof & D. V. Serov; ZFMK 23687–23752 (66), 24.5–50.3 mm, River Dai Tan at Lam Ha village south of Da Lat, Lam Dong Prov., Vietnam, 11°47.49'N 108°14.12'E, 20 Jan 1999, J. Freyhof & D. V. Serov; ZFMK 23753–23758 (6), 32.2–53.4 mm, River Da Dung 25 km south of Da Lat, Lam Dong Prov., Vietnam, 11°45.48' 108°23.78'E, 21 Jan 1999, J. Freyhof & D. V. Serov; ZFMK 23762–23905 (144), 29.2–60.3 mm, River Dai Tan about 30 km south of Da Lat, Lam Dong Prov., Vietnam, 11°46.64' 108°19.28'E, 21 Jan 1999, J. Freyhof & D. V. Serov.

Type material in other collections: CMK 15998 (16), 29.2–59.2 mm, same data as holotype.

Sewellia albisuera Freyhof, 2003
Ichthyol Expor Freshwaters 14: 226

Holotype: ZFMK 32913, 44.3 mm, River Thu Bon about 16 km west of Than My, Quang Nam Da Nang Prov., Vietnam, 15°40.33'N 107°48.45'W, 12 Mar 2000, J. Freyhof & D. Serov.

Paratypes: ZFMK 32910–32912 (3), 38.7–52.4 mm, same data as holotype.

Type material in other collections: AMNH 231609 (10), 33.8–64.0 mm, River Nuac Ta at waterfall, Try My district, Quang Nam Da Nang Prov., Vietnam, 29 Mar 1999, M. L. J. Stiassny, R. A. Arrindell et al.; AMNH 231611 (3), 34.1–40.2 mm, River Tranh, Try My district, Quang Nam Da Nang Prov., Vietnam, 4 Apr 1999, M. L. J. Stiassny, R. A. Arrindell et al.; AMNH 231616 (2), 56.0–57.4 mm, River Nuac Ta, Try My district, Quang Nam Da Nang Prov., Vietnam, 29 Mar 1999, M. L. J. Stiassny, R. A. Arrindell et al.; AMNH 231622 (1), 39.7 mm, River Nam Nin, Try My district, Quang Nam Da Nang Prov., Vietnam, 3 Apr 1999, M. L. J. Stiassny, R. A. Arrindell et al.

Sewellia breviventralis Freyhof & Serov, 2000
Ichthyol Expor Freshwaters 11: 231

Holotype: ZFMK 20955, 50.7 mm, River Pako about 50 km north of Kontum, Kontum Prov., Vietnam, 14°39'60"N 107°46'98"E, 22 Feb 1999, J. Freyhof & D. V. Serov.

Paratypes: ZFMK 20956–20961 (6), 37.8–50.1 mm, same data as holotype.

Sewellia marmorata Serov, 1996
Vop Ikhtiol 36: 273

Paratypes: ZFMK 18543–18544 (2), Kon Ha Nung, Vietnam, 13°57'N 107°32'E, 25 Jan 1991, D. Serov.

Type material in other collections: Holotype: ZMM P-19760, same data as ZFMK 18543–18544; Paratypes: ZMM P-19761 (11), same data as ZFMK 18543–18544.

Sewellia patella Freyhof & Serov, 2000
Ichthyol Expor Freshwaters 11: 235

Holotype: ZFMK 20962, 36.8 mm, stream Azun about 30 km east of Pleiku, Gia Lai Prov., Vietnam, 14°02'34"N 108°21'07"E, 24 Feb 1999, J. Freyhof & D. V. Serov.

Paratypes: ZFMK 20963–20980 (18), 21.6–48.2 mm, same data as holotype; ZFMK 20981–20986 (6), 30.9–43.6 mm, River Dakpne 30 km northeast of Kontum, Kontum Prov., Vietnam, 14°30'35"N 108°13'92"E, 21 Feb 1999, J. Freyhof & D. V. Serov; ZFMK 20988–20989 (2), 34.7–40.2 mm, stream near Buon Loi village, Gia Lai Prov., Vietnam, 14°14'93"N 10°35'20"E, 25 Feb 1999, J. Freyhof & D. V. Serov.

HEMIODONTIDAE

Pterohemiodus luelingi Géry, 1962
Bonn zool Beitr 12: 332

Holotype: ZFMK 1226, (ex MKI 59-60/QC/12), Quisto Cocha, 15 km west of Iquitos, Perú, 1 May 1959, K. H. Lüling

Paratype: ZFMK 1227, (ex MKI 59-60/QC/13), same data as ZFMK 1226.

Type material in other collections: Paratype: MHNG 2150.6 (ex Géry M.202.3), same data as holotype.

Current status: Synonym of *Hemiodus atranalis* Fowler, 1940 (Langeani in Reis et al. 2003: 98).

LEBIASINIDAE

Pyrrhulina zigzag Zarske & Géry, 1997

Das Aquarium 31 (No. 336): 14

Paratypes: ZFMK 19909–19912 (4), 21.2–25.6 mm, Yarina Cocha, Río Ucayali, Perú, 8 Aug 1974, K. H. Lüling.

Type material in other collections: Holotype: MTD F 17705, creek on road from Campo Verde to Nueva Requena, Perú, 28 Aug 1996, P. Debold, K. Schade, I. Seidel, H. Windhorst, S. Wlach & A. Zarske; Paratypes: MTD F 10963–10966 (4), Cocha Nazareth, tributary stream of Río Ucayali close by Requena, Perú, 18 Sep 1979, H.-J. Franke; MTD F 10967–10969 (3), brook at the Carretera Central, 21 km from Pucallpa, Perú, 21 Aug 1981, H.-J. Franke; MTD F 17247–17254 (8), same data as holotype; MTD F 17318–17333 (16), at Quebrada Manatai, Perú, 28 Aug 1996, P. Debold, K. Schade, I. Seidel, H. Windhorst, S. Wlach & A. Zarske; MTD F 17414–17425 (13), Tierra Roja, 30 Aug 1996, P. Debold, K. Schade, I. Seidel, H. Windhorst, S. Wlach & A. Zarske; MTD F 17660–17663 (4), km 34 of the street Pucallpa-Campo Verde, Perú, 28 Aug 1996, P. Debold, K. Schade, I. Seidel, H. Windhorst, S. Wlach & A. Zarske; Additional paratypes at ZMB, ZMA, MHNG, and private collection of Géry [no collection numbers provided].

CHARACIDAE

Aphyocharacidium bolivianum Géry, 1973

Beitr neotrop Fauna 8: 101.

Holotype ZFMK 2933, brook between upper Río Chaparé and Río Chimoré, Río Mamoré drainage, eastern of Todos Santos, Central Bolivia, 9 Oct 1966, K. H. Lüling.

Type material in other collections: Paratypes: ZSM [no number provided] (1), same data as holotype; ZSM [no number provided] (1), Arroyo Chichigambo, near Espíritu upper Yacuma, Río Mamoré drainage, north of Río Chaparé, 15 Aug 1955, K. P. Baumert [both paratypes currently not in ZSM; at least one inventoried at MHNG as MHNG 2232.073; to be returned].

Astyanax villwocki Zarske & Géry, 1999

Mitt Hamb Zool Mus Inst 96: 199

Paratype: ZFMK 20781, 43.4 mm, Chaparé-Chimoré, Bolivia, 1968, K. H. Lüling.

Bonn zoological Bulletin 59: 109–136

Type material in other collections: Holotype: MTD F 22400, 113.8 mm, Río Pacal, Río Pachitea basin, Departamento Ucayali, Perú, Sep 1973, W. Villwock; Paratypes: ZMH 9175 (2), 55.0–55.8 mm, same data as holotype; MTD F 22116 (1), 100.3 mm, same data as holotype, private collection of J. Géry 1022.1 (1), same data as holotype; MTD F 17737–17741 (5), 32.9–59.4 mm, San Alejandro on the Carretera Federico Basadre (km 111), Dept. Ucayali, Perú, 31 Aug–2 Sep 1996, A. Zarske *et al.*; MTD F 17614–17615 (2), 42.6–47.0 mm, pond on km 25 of the road Campoverde-Tournavista, Dept. Ucayali, Perú, 30 Aug 1996, A. Zarske *et al.*; MNHN 1999–0318 to 0320 (3), 40.0–46.3 mm, Chapare-Coni, Bolivia, 1982, G. Loubens & L. Lauzanne; MNHN 1999–0321 to 0323 (3), 41.1–46.0 mm, Río San Juanito, Dept. Beni, Bolivia, 13 Jul 1982, G. Loubens; private collection of J. Géry 1022.2–3 (2), 38.6–51.5 mm, Río San Juanito, Dept. Beni, Bolivia, 13 Jul 1982, G. Loubens; MHNG 2603.17 (1), 94.1 mm, Bosque Nacional von Humboldt, middle Río Catilona, 86 km from Pucallpa, Dept. Ucayali, Perú, 31 May 1977, P. de Rham; MHNG 2603.18 (6), 29.3–43.8 mm, Bosque Nacional von Humboldt, Dept. Ucayali, Perú, 24 Jun 1978 [no collector provided].

Bryconamericus guyanensis Zarske, Le Bail & Géry, 2010

Vertebrate Zoology 60: 4

Paratypes: ZFMK 41764–41773 (10), 27.9–39.2 mm, crique Eau Claire at 7 km of Saül, Mana, French Guyana, 3 Jun 1983, Duranton & Demarty.

Type material in other collections: Holotype: MNHN 2010–0036, 43.2 mm, same data as ZFMK 41764–41773; Paratypes: MTD F 31932–31936 (5), 18.7–30.1 mm, Bas Maroni, crique Balatée, French Guyana, 9 Oct 1979, P. Planquette (lot 1); MNHN 2010–0037 (2), 23.4–38.1 mm, Village Antecume Pata, Haut Maroni, French Guyana, 15 Dec 1985, P. Planquette & P.-Y. Le Bail; 15.12.1985 (lot 2); MNHN 2010–0038 (12), 33.8–46.8 mm, crique Eau Claire at 7 km of Saül, Mana, French Guyana, 3 Jun 1983, Duranton & Demarty (lot 3); MTD F 31937–31949 (13), 31.8–43.1 mm, same data as ZFMK 41764–41773; MHNG 2722.008 (10), 31.6–41.0 mm, same data as ZFMK 41764–41773; ZMB 33936 (10), 31.0–41.4 mm, same data as ZFMK 41764–41773; MTD F 31950–31951 (2), 27.3–33.5 mm, Saut Ananas, crique No. 3, French Guyana, 04°06'04"N 53°31'23"W, 22 Sept 1995, P.-Y. Le Bail, P. Planquette & P. Keith (lot 4); MTD F 31988–31993 (6), 21.4–7.9 mm, Saut Ananas, French Guyana 1957, Géry; MNHN 2010–0039 (14), 24.2–42.3 mm, Saut Capiaie, French Guyana, 04°05'39"N 53°31'31"W, 24 Sept 1995, P.-Y. Le Bail, P. Planquette & P. Keith (lot 5); IRSNB 21735 (9), 36.2–56.7 mm,

Crique Colon, affluent de la Crique Lézard, near Citron, French Guyana, 04°44'19"N 53°57'33"W, 13 Nov 1982, P. Planquette & P.-Y. Le Bail.

Characidium heinianum Zarske & Géry, 2001
Zool Abh Mus Tierk Dresden 51: 231 Figs 1–3

Paratypes: ZFMK 39131–39135 (5), Río Iourupuru, tributary stream of Río Mamoré, near the cross of the river with the road Ramón, about 73 km north of Trinidad, Dep. Beni, Bolivia, 14°12'53.8"S 64°56'26.8"W, 14–15 Jun 2000, A Zarske, G. Hein, T. Tonoki & J. Zapata.

Type material in other collections: Holotype: MTD F 24825, same data as ZFMK 39131–39135; Paratypes: MTD F 24826–24830 (5); MTD F 24831–24832 (2), alizarin preparation, same data as ZFMK 39131–39135; MTD F 24826–24830 (5), same data as ZFMK 39131–39135; CIRA-UTB 968 a–e (5), same data as ZFMK 39131–39135; ZMB 33236 (5); ZSM 29465–29469 (5), same data as ZFMK 39131–39135; MHNG 24831–32 (2), same data as ZFMK 39131–39135; MHNG 2618.90 (5), same data as ZFMK 39131–39135; Private collection Géry 1043.1–5.2001 (5), same data as ZFMK 39131–39135; CAZ 361 (5), same data as ZFMK 39131–39135.

Cheirodon luelingi Géry, 1964
Beitr neotrop Fauna 4: 19

Holotype: ZFMK 1417, small creek between Caño Yarina and Zapote Cocha, lower Río Pacaya, Perú, 29 Sep 1959, K. H. Lüling.

Paratype: ZFMK 1418, same data as holotype.

Type material in other collections: Paratypes: MHNG 2150.16–17 (2), same data as holotype.

Hasemania crenuchoides Zarske & Géry, 1999
Spixiana 22: 91

Paratypes: ZFMK 20543–20547 (5), 28.6–31.88 mm, Corrego Planaltina upper Rio Sao Bartolomeu, northeast of Brasilia, Distrito Federal, Goias, Brazil, Aug 1965, H. Schultz.

Type material in other collections: Holotype: MZUSP 52732, male, 65.8 mm, same data as ZFMK 20543–20547; ZSM 22656 (55), same data as ZFMK 20543–20547; MTD F 21538–21545 (8), therefrom 3 alizarin preparations, same data as ZFMK 20543–20547; private collec-

tion of J. Géry 1010.1–5 (5), same data as ZFMK 20543–20547; MHNG 2594.44 (5), same data as ZFMK 20543–20547; ZMB 23959 (5), same data as ZFMK 20543–20547.

Hemigrammus luelingi Géry, 1964
Beitr neotrop Fauna 4: 7

Holotype: ZFMK 1304, small creek between Caño Yarina and Zapote Cocha, lower Río Pacaya, Perú, 29 Sep 1959, K. H. Lüling.

Paratype: ZFMK 1305, same data as holotype.

Type material in other collections: Paratypes: MHNG 2150.14–15 (2).

Hyphessobrycon gracilior Géry, 1964
Beitr neotrop Fauna 4: 12

Holotype: ZFMK 1329, small creek between Caño Yarina and Zapote Cocha, lower Río Pacaya, Perú, 29 Sep 1959, K. H. Lüling.

Paratype: ZFMK 1330, same data as holotype.

Type material in other collections: Paratypes: MHNG 2150.12–13 (2).

Hyphessobrycon guarani Mahnert & Géry, 1987
Bonn zool Beitr 38: 307

Paratypes: ZFMK 15521–15523 (3), Monte Carlo, Misiones Alto Paraná, Argentina, Sep 1979, K. H. Lüling.

Type material in other collections: Holotype: MHNG 2366.99, 30.0 mm, Río Alto Paraná at Puerto Bertoni, Paraguay, 13 Nov 1982, P. Berner, C. Dlouhy & V. Mahnert; Paratypes: MHNG 2366.100 (77), 17.9–30.5 mm, therefrom 6 alizarin preparations, same data as holotype; MHNG 2367.1 (34), Pirapyta, Lago Itaipu, Alto Paraná, 19 Feb 1984, C. Dlouhy; MHNG 2367.2 (41), Itabo, Lago Itaipu, 19 Oct 1984, C. Dlouhy; MHNG 2367.3 (1), same data as ZFMK 15521–15553.

Hyphessobrycon nigrincinctus Zarske & Géry, 2004
Zool Abh Mus Tierk Dresden 54: 33, Figs 1–3

Paratype: ZFMK 39847 (1), 27.4 mm, Import bred specimen out off Río Reducto, tributary stream of Río Manuripi, near the city Alegría, Madre de Dios, Perú, ded Apr 2004, P. & M. Hoffmann.

Type material in other collections: Holotype: MTD F 28465 (1), 32.8 mm, import specimen, same data as ZFMK 39847; Paratypes: MTD F 28457–28459 (3), 29.5–32.7 mm, import specimens, same data as ZFMK 39847, 19 Jul 2004, R. Numrich; Private collection of J. Géry, 1065.1.2004 (1), same data as ZFMK 39847.

***Hyphessobrycon pando* Hein, 2009**

Bull Fish Biol 10: 2

Holotype: ZFMK 41452, 35.4 mm, Río Manuripi, near to Puerto Cardenas, Departamento Pando, Bolivia, 11°20.083'S 67°44.576'W, 12 May 2001, G. Hein, H. Längert, J. Zapata & A. Zarske.

Paratypes: ZFMK 41453–41456 (4), 27.4–36.7 mm, same data as holotype.

Type material in other collections: CIRA-UTB 973 a–c (3), 29.3–32.0 mm, same data as holotype; MTD F 30756–30758 (3), 28.3–30.0 mm, same data as holotype.

Remarks: Additional material: ZFMK 41457–41459 (3), same data as holotype, cleared and stained. Date in reference “31.12.2008”, but printed in 2009.

***Hyphessobrycon procerus* Mahnert & Géry, 1987**

Bonn zool Beitr 38: 311

Paratypes: ZFMK 15518–15519 (2), Río Guayraugua, Depto. Caaguazú, Paraguay.

Type material in other collections: Holotype: MHNG 2385.68, male, 32.9 mm; Paratypes: MHNG 2385.69 (28), therefrom 2 alizarin preparations; MNHN 1988-0468 (2); MZUSP 45714 [ex MHNG 2385.69] (2); USNM 290841 [ex MHNG 2385.69] (3).

***Hyphessobrycon tenuis* Géry, 1964**

Beitr neotrop Fauna 4: 10

Holotype: ZFMK 1327, small creek between Caño Yarina and Zapote Cocha, lower Río Pacaya, Perú, 29 Sep 1959, K. H. Lüling.

Paratype: ZFMK 1328, same data as holotype.

Type material in other collections: Paratypes: MHNG 2150.8–11 (4), same data as holotype; ZMA 113.853 (1), same data as holotype; ANSP 139708 (1), same data as holotype.

***Knodus borki* Zarske, 2008**

Vertebrate Zoology 58: 160

Paratype: ZFMK 41480 (1), 29.46 mm, near Iquitos, Perú, specimen from commercial import, 2008, D. Bork don.

Type material in other collections: Holotype: MTD F 31357, 33.99 mm, same data as ZFMK 41480; Paratypes: MTD F 31358–31362 (5), 29.74–33.13 mm, same data as ZFMK 41480; NMW 95153 (1), 30.76 mm, same data as ZFMK 41480; MHNG 27098.085 (1), 29.37 mm, same data as ZFMK 41480; ZMB 33872 (1), 31.55 mm, same data as ZFMK 41480.

***Moenkhausia margitae* Zarske & Géry, 2001**

Zool Abh Mus Tierk Dresden 51: 7, Figs 1–2

Paratype: ZFMK 26448 (1), Campo Verde, Ucayali, Perú, 3 Sep 1978, K. H. Lüling.

Type material in other collections: Holotype: MTD F 17256, Quebrada on road Campo Verde-Nueva Requena (about half way), Ucayali, Perú; Paratypes: MTD F 17257–17258 (2), same data as ZFMK 26448; MHNG 2610.01, Bosque Nacional A. von Humboldt, Carretera Central 86 km from Pucallpa in direction to Lima, Ucayali, Perú (No. 13), 29 May 1977, P. de Rham; MHNG 2610.02 (16) (No. 14), same data as MHNG 2610.01; MHNG 2610.03 (13) (No. 14), same data as MHNG 2610.01; MHNG 2610.04 (13) (No. 15), same data as MHNG 2610.01; private collection of J. Géry 1029.1–3.2000 (3), 37.2–52.0 mm, waters at km marker 85 of the road from Puerto Inca to Tingo Maria, Ucayali, Perú, 9 Aug 1985, Staeck & Linke; private collection of J. Géry 1029.4.2000 (1), 44.0 mm, Río Neshuya, 60 km southeast of Pucallpa, Ucayali, Perú, Feb 1984, Lombart.

***Oxybrycon parvulus* Géry, 1964**

Beitr neotrop Fauna 4: 16

Holotype: ZFMK 1331, small creek between Caño Yarina and Zapote Cocha, lower Río Pacaya, Perú, 29 Sep 1959, K. H. Lüling.

Paratypes: ZFMK 1332–1357 (26), same data as holotype.

Type material in other collections: Paratypes: MHNG 2150.18–27 (10); ZMA 113.861 (2); ANSP 139709 (1); all same data as holotype.

Remarks: Type species of *Oxybrycon* Géry, 1964.

Petitella georgiae Géry & Boutière, 1964
Vie et Milieu Supl 17: 474

Paratype: ZFMK 1419, muddy bank of the Amazon River, upstream of Iquitos, Distr. Loreto, Perú, Dec 1959, K. H. Lüling.

Type material in other collections: Holotype: MHNG 2150.28. (ex J. Géry collection M.314,1), male, near Lagunas, lower Río Huallaga, Distr. Loreto, Perú, beginning of 1959, V. Manuel; Paratypes: MHNG 2150.29–64 (37), same data as holotype; MHNG 2150 6588 (31), near Iquitos, Distr. Loreto, Perú, beginning 1960, collector unknown; ZSM 26332 (3), same data as holotype; MNHNP 1980–1447 (2), Distr. Loreto, Perú, 24 Feb 1961, P. Pirron.

Piabarchus torrenticola Mahnert & Géry, 1988
Rev fr Aquariol 15: 3

Paratype: ZFMK 15520 (ex MHNG 2385.72) (1), Salto Pirareta, Cordillera, Paraguay, 12 Nov 1985, C. Dlouhy, Cl. Vaucher & V. Mahnert.

Type material in other collections: Holotype MHNG 2385.70, 45.7 mm, Salto Pirareta, 21 Mar 1985, C. Dlouhy, F. Baud, & V. Mahnert; Paratypes: MHNG 2385 72 (59), same data as ZFMK 15520; MHNG 2385.73 (4), smaller tributary stream running in Río Piribebuy, 10 km south of Tobati, Prov. Cordillera, 19 May 1985, C. Dlouhy, F. Baud & V. Mahnert; MHNG 2385.74, Mountain stream (afflux) running into Lago Ypacaraí, Prov. Cordillera, ded. H. Bleher.

Serrasalmus sanchezi Géry, 1964
Beitr neotrop Fauna 4: 27

Holotype: ZFMK 1216, Caño Yarina, Río Pacaya, creek in lower Río Ucayali, Perú, 31 Aug 1959, K. H. Lüling.

Paratype: ZFMK 1217, same data as ZFMK 1216.

Type material in other collections: Paratype: MHNG 2150.7, same data as ZFMK 1216.

Tucanoichthys tucano Géry & Römer, 1997
Aqua, J Ichthy Aquat Biol. 2: 66 Figs 1, 5–6

Paratypes: ZFMK 18585–19589 (5), brook draining to Igarape Yavuari river, tributary stream of river Uaupés, upper river Negro, Amazonas, Brazil, 0°14'31"N 68°03'48"W, May 1996, U. Römer et al.

Type material in other collections: Holotype: MZUSP 51322 (10); MHNG 2588.41 (3); MTD F 18469–7; SMF 28208 (1); all same data as ZFMK 18585–19589.

Tyttobrycon dorsimaculatus Géry, 1973
Beitr neotrop Fauna 8: 118.

Holotype: ZFMK 2916, male, 19 mm, "Hoffmann-lagoon", Río Chaparé (tributary of Río Mamoré), lower Todos Santos, Central Bolivia, about 16°45'S 65°07'W, 7 Oct 1966, K. H. Lüling.

Paratypes: ZFMK 2624 (1), 12 mm, same data as holotype; ZFMK 2952–2956 (5), small specimens, Río Chaparé, ravine 4 km below Todos Santos, 8 Oct 1966, K. H. Lüling; ZFMK 2960–2962 (3), ravine 6 km below San Francisco on the Río Chipiriri, Mamoré-system, Central Bolivia, 3 Oct 1966, K. H. Lüling; ZFMK 2963–2979 (18), stagnant arm of the Río Chipiriri 1.5 km below San Francisco, Mamoré-system, Central Bolivia, 4 Oct 1966, K. H. Lüling.

Type material in other collections: Paratypes: private collection of J. Géry [no collection numbers provided] (28).

Tyttobrycon spinosus Géry, 1973
Beitr neotrop Fauna 8: 121 Figs 23–26

Holotype: ZFMK 3000, brook between Río Chaparé and Río Chimoré, Río Mamoré system, east of Todos Santos, Central Bolivia, 9 Oct 1966, K. H. Lüling.

Paratype: ZFMK 1420 (1), same data as holotype.

Type material in other collections: Paratypes: Private collection J. Géry [no collection numbers provided] (2), same data as holotype.

DIPLOMYSTIDAE

Diplomystes camposensis Arratia, 1987
Bonn zool Mon 24: 45

Paratypes: ZFMK 14800 (1), 39°44'34"S 72°30'56"W, Río San Pedro close to Taco 3, Chile, 14 Dec 1985, K. Busse; ZFMK 14801–14805 (5), 39°46'34"S 72°27'10"W, Lago Riñihue (Desagüe), Prov. Valdivia, Chile, Jan 1986, K. Busse.

Type material in other collections: Holotype: IZUA 3302, 169.6 mm, Lago Riñihue, 2 Oct 1983, A. Arriagada & A. Klink; Paratypes: IZUA 3303 (2), Lago Riñihue, 4 Nov

1975; IZUA 2807 (1), Lago Riñihue (IZUA-material probably destroyed in the blaze of 2008); SMF 7579 (1), Río Valdivia, 11 Dec 1964, H. Canmpos; MCZ 54388 (1), Río San Pedro near Los Lagos, Prov. Valdivia, 22 Mar 1979, G. Arratia; CAS 55428 (2), Lago Riñihue, 16 Mar 1979, C. Eigenmann; KU 19210 (1) (flare example), Río San Pedro near Purey, 19 Feb 1967, G. Arratia & H. Diaz; KU 19209 (3), Río San Pedro near Los Lagos, Feb 1976, G. Arratia & H. Diaz; KU 19257 (1), Río Curalelfú, Los Lagos, Feb 1976, G. Arratia & H. Diaz; private collection of G. Arratia 110276, 120276, 130276, 140276 (5) (flare examples), Río San Pedro, G. Arratia; private collection of G. Arratia 111285 (1), Río San Pedro near confluence of Quinchilca, 10 Dec 1985, K. Busse; private collection of G. Arratia 011986 a (2), Desagüe Lago Riñihue, Jan 1986, K. Busse; private collection of G. Arratia 011986 b (3), Lago Riñihue, Jan 1986.

BAGRIDAE

Bagrus koenigi Pietschmann, 1932
Zool Anz 100: 92

Holotype: ZFMK (1899) 209, Nile, upper Egypt, 1899, A. Koenig.

Current status: Synonym of *Bagrus docmak* Forskål, 1775 (Risch 1986: 11)

Pseudobagrus nubilosus Ng & Freyhof, 2007
Ichthyol Explor Freshwaters 18: 10, Fig. 1; 9–26

Paratypes: ZFMK 31245–31246 (2), 43.9–49.0 mm, 14°12'37.2"N 108°45'42.6"E, Nuoc Choc stream, a tributary of Song Vinh Tranh, about 60 km northwest of Qui Nhon, Binh Dinh Prov., Vietnam, 23 Mar 1999, J. Freyhof & D. V. Serov.

Type material in other collections: Holotype: UMMZ 246370, 48.5 mm, same data as ZFMK 31245–31246; Paratypes: UMMZ 246320 (2), 49.0–50.8 mm, same data as ZFMK 31245–31246.

Pseudomystus sobrinus Ng & Freyhof, 2005
Copeia 2005:745

Holotype: ZFMK 27167, 63.2 mm, 12°53'05"N 109°23'70"E, stream about 15 km south of Tuy Hoa Phu Yen Prov., Vietnam, 26 Feb 1999, J. Freyhof & D. V. Serov.

Paratypes: ZFMK 24068–24073 (6), 38.3–59.0 mm, Crong Hang (stream) near the village of M'Drac, about 60 km west of Ninh Hoa, tributary of Song Ba, Dac Lac Prov., Vietnam, 12°46'10"N 108°42'76"E, 28 Jan 1999, J. Freyhof & D. V. Serov; ZFMK 24166 (1), 86.3 mm, market of Azun Pa, Gia Lai Prov., 30 Apr 2000, J. Freyhof, F. Herder & D. V. Serov; ZFMK 27168–27183 (17), 30.6–79.8 mm, same data as holotype; ZFMK 27184–27185 (2), 38.0–42.5 mm, stream about 30 km west of Tuy Hoa, Phu Yen Prov., Vietnam, 13°03'08"N 109°05'00"E, 2 Mar 1999, J. Freyhof & D. V. Serov.

Type material in other collections: UMMZ 245016 (3), 46.3–47.8 mm; ZRC 49172 (2), 42.6–52.5 mm; all same data as ZFMK 27184–27185.

AMPHILIIDAE

Leptoglanis wamiensis Seegers, 1989
Aquat Terrar Z 42: 285

Holotype: ZFMK 15899, Kisangata creek, tributary of the Wami river at Mvumi, 32 km southwest of Kidete on the Kimamba-Kilosa road, Morogoro, Tanzania, 3 Jan 1989, B. Kilian & L. Seegers.

Paratypes: ZFMK 15900–15902 (3), same data as holotype.

Current status: Synonym of *Zaireichthys rotundiceps* Hilgendorf, 1905 (Ferraris 2007: 29)

AKYSIDAE

Akysis clavulus Ng & Freyhof, 2003
Ichthyol Explor Freshwaters 14: 312

Holotype: ZFMK 27159, about 10 km west of Ninh Hoa, Song Duc My, Khanh Hoa Prov., Vietnam, 12°32'22"N 109°01'38"E, 10 Feb 1999, J. Freyhof & D. V. Serov.

Paratypes: ZFMK 25506–25516 (11), 23.8–31.0 mm, same data as holotype; ZFMK 223265 (1), stream near Kanh Vinh about 34 km from Nha Trang, tributary stream of Song Cai, 12°16'42"N 107°54'56"E, 17 Dec 1998, J. Freyhof & D. V. Serov; ZFMK 27506–27509 (4), 25.5–31.4 mm, stream near grave of Yersin, about 20 km south of Nha Trang in a tributary stream of Song Cai, 12°10'73"N 103°04'10"E, 13 Feb 1999, J. Freyhof & D. V. Serov; ZFMK 27156–27158 (3), 21.2–28.0 mm, and ZFMK 27160–27165 (6), 25.0–27.7 mm, stream Giang May, about 30 km south of Nha Trang, a tributary of Song Cai, Khanh Hoa Prov., Vietnam, 12°12'12"N

108°55'48"E, May 2000, J. Freyhof, F. Herder & D. V. Serov.

Type material in other collections: Paratypes: UMMZ 238018 (1), 35.0 mm; ZRC 46177 (3), 26.8–30.0 mm; all same data as ZFMK 27159.

SISORIDAE

Glyptothorax filicatus Ng & Freyhof, 2008
Zootaxa 1873: 12

Holotype: ZFMK 34398, 83.3 mm, 12 km east of A Luoi, stream draining to Se Sap River, Thua Thien Hue province, Vietnam, 16°20.57'N 107°9.41'E, 20 Mar 2000, J. Freyhof, F. Herder & D. Serov.

Paratype: ZFMK 34399 (1), 91.9 mm, same data as holotype.

Type material in other collections: Paratype: UMMZ 245668 (1), 69.0 mm, same data as holotype.

Glyptothorax strabonis Ng & Freyhof, 2008
Zootaxa 1873: 16

Paratypes: ZFMK 35285–35286 (2), 84.0–95.5 mm, market in Phong Nha, Quang Binh province, Vietnam, 7 Apr 2000, J. Freyhof, F. Herder & D. Serov.

Type material in other collections: Holotype: UMMZ 245669, 80.1 mm, same data as ZFMK 35285–35286.

Oreoglanis infulatus Ng & Freyhof, 2001
J Fish Biol 59: 1165; Figs 1–3

Holotype: ZFMK 35719, 76.1 mm, stream at Son Kim, tributary of Song Lam, Ha Tinh Prov., Vietnam, 18°24'25"N 105°11'10"E, 11 Apr 1999, J. Freyhof, F. Herder & D. V. Serov.

Paratypes: ZFMK 35720–35725 (6), 40.3–72.4 mm.

Type material in other collections: Paratypes: UMMZ 238025 (6), same data as ZFMK 35719.

HEPTAPTERIDAE

Imparfinis pseudonemacheir Mees & Cala, 1989
Proc konink nederl Akad Wetensch C 92: 388

Paratypes: ZFMK 17818–17819 (2), at the street of Pucallpa to Tournavista, Distr. Loreto, Perú, 3 Sep 1978, K. H. Lüling.

Type material in other collections: Holotype and paratypes: RMNH 30489 (3) (largest specimen is the holotype); Río Tucuragua near Caicara, Bolívar, Venezuela, 25 Mar 1986, B. Román; RMNH 30487 (4), Río Guayuriba (Puerto López), Meta, Colombia, 20 Feb 1972, P. Cala; ICN-NHM 1403 (4), same data as RMNH 30487.

CALLICHTHYIDAE

Corydoras lacerdai Hieronimus, 1995
Z Fischk 3: 110

Paratypes: ZFMK 18551, 33.6 mm; ZFMK 18552, 27.8 mm; ZFMK 18553–18556 (4), 21.0–26.0 mm; all Rio Ribeira da Terra Firme between Canavieiras and Ilheus, Brazil, 1 Jan 1993, M. T. C. Lacerda, S. S. Valério & D. Byron.

Type material in other collections: Holotype: MZUSP 47682, female, 33.6 mm; Paratypes: MZUSP 47683 (1), 33.0 mm and MZUSP 47684 (1), male, 25.2 mm; MZUSP without number (12), 14–23 mm; ZMA 121.255 (4), private collection of Hieronimus (4); all same data as ZFMK 18551.

Corydoras pinheiroi Dinkelmeyer, 1995
Aquarist aktuell 3: 60

Paratypes: ZFMK 18499, 18500, 18540–18542 (5), tributary stream of Rio Ribeirão, near the village of Guajará-Mirim, Est. Rondônia, Brazil, 3 Oct 1994, M. T. C. Lacerda, Y. Nakamura & V. Alvez.

Type material in other collections: Holotype: MZUSP 48099, male, 57.0 mm; Paratypes: ZMA 121.269 (3); all same data as ZFMK 18499, 18500, 18540–18542.

Corydoras sarareensis Dinkelmeyer, 1995
Aquarist aktuell 3: 61

Paratypes: ZFMK 18504–18506 (3), Rio Sararé, right hand side tributary stream of Rio Guaporé, Est. Mato Grosso, Brazil, 1994, M. T. C. Lacerda.

Type material in other collections: Holotype: MZUSP 48100, male, 43.8 mm; Paratypes: ZMA 121.268 (4); all same data as ZFMK 18504–18506.

Corydoras seussi Dinkelmeyer, 1996
Aqu aktuell 1996: 25

Paratypes: ZFMK 18628–18653 (26), small side stream at Rio Pacas Novos, side branch of Rio Mamoré near Guajar-Mirim, Est. Rodônia, Brazil, Sep 1999 (date of shipment), T. C. Lacerda.

Type material in other collections: Holotype: MZUSP 49322, female, 60.8 mm; Paratypes: MZUSP 49323 (10); ZMA 121.570 (10); all same data as ZFMK 18628–18653.

Corydoras similis Hieronimus, 1991
Z Fischkunde 1: 41

Holotype: ZFMK 16400, 35.3 mm, near the city of Ariqumes, a tributary of Rio Madeira, federal state of Rondonia, Brazil, commercial import.

Paratypes: ZMA 120.746, same data as ZFMK 16400.

LORICARIIDAE

Ancistrus pirareta Muller, 1989
Rev Suisse Zool 96: 891

Paratypes: ZFMK 16281–16282 (2), Salto Pirareta, Piri-bebu, Afflux of Río Tebicuary-mi, Cordillera, Paraguay, 21–23 Mar 1985, F. Baud, C. Dlouhy & V. Mahnert.

Type material in other collections: Holotype: MHNG 2450.10, male, 82.3 mm, same data as ZFMK 16281–16282; Paratypes: MHNG 2268.56 (78) (2 of these are alizarin preparations), MCP (2) [no number provided], USNM 307765 (2), ZMA 120.329 (5) and ZSM 27592 (2).

Ancistrus piriformis Muller, 1989
Rev Suisse Zool 96: 887

Paratypes: ZFMK 16279–16280 (2), Río Acaray beneath the barrier lake, Alto Paraná, Paraguay, 15 May 1982, C. Dlouhy.

Type material in other collections: Holotype: MHNG 2450.11, male, 80.8 mm, same data as ZFMK 16279–16280; Paratypes: MHNG 2268.58–59 (88), (2 of these are alizarin preparations), same sampling locality as ZFMK 16279–16280; MCP (2), USNM 307766 (2), ZMA 120.328 (5) and ZSM (2); all same data as ZFMK 16279–16280; MHNG 2160.25 (1), 52.7 mm and 2268.20 (1), 72.5 mm, 7 Oct 1980.

Bonn zoological Bulletin 59: 109–136

Pseudohemiodon (Planiloricaria) cryptodon Isbrücker, 1971

Bonn zool Beitr 21: 278

Holotype: ZFMK 1865 (ex ZFMK I/66/1717), Río Uca-yali near Pucallpa, Perú, Sep–Oct 1966, K. H. Lüling.

Remarks: Type species of the subgenus *Planiloricaria* Isbrücker, 1971.

Current status: Valid as *Planiloricaria cryptodon* Isbrücker, 1971 (Isbrücker 1980).

GALAXIIDAE

Brachygalaxias gothei Busse, 1982
Bonn zool Beitr 33: 72

Holotype: ZFMK 11110, male, Fundo Porvenir, Talca, Chile, 9 Nov 1981, K. H. Gothe & K. Busse.

Paratypes: ZFMK 11111–11130, 11137–11158 (42), same data as holotype.

Type material in other collections: Additional paratypes in the collections of BM 1982.11.10: 865–866 (2) (ex ZFMK 11131–11132); IZUA 2721 (2) (ex ZFMK 11133–11134); MNHNC P6.055–P6.056 (2) (ex ZFMK 11135–11136).

Galaxias bullocki Regan, 1908
Ann Mag nat Hist London 8: 372

Paralectotypes: ZFMK 12911 (1), male, Maquehue near Temuco, Chile, 6 Apr 1907, D. S. Bullock; ZFMK 12912 (1), female, same data as ZFMK 12911. Both specimens ex BMNH.

Type material in other collections: Lectotype: BMNH 1968.9.16.1, female, same data as ZFMK 12911; Paralectotypes: BMNH 1968.9.16.2–47, same data as ZFMK 12911 (design. Busse 1984, Bonn zool Mon 19: 217).

Current status: Valid as *Brachygalaxias bullocki* (Regan, 1908) (McDowall 1971: 60).

SALMONIDAE

Coregonus fontanae Schulz & Freyhof, 2003
Ichthyol Explor Freshwaters 14: 212

Holotype: ZFMK 22805, 118.8 mm, Lake Stechlin, Brandenburg, Germany, 53°09'N 13°04'E, 23 Apr 2001, M. Schulz.

Paratypes: ZFMK 22806–22820 (15), 98.3–118.6 mm, same data as holotype.

Type material in other collections: Paratypes: ZMB 33328 (20), 90.0–125.9 mm, same data as holotype.

NOTHOBRANCHIIDAE

Aphyosemion (Mesoaphyosemion) etsamense Sonnenberg & Blum, 2005
Bonn zool Beitr 53: 213

Holotype: ZFMK 39832, male, 32.4 mm, small river at the village Etsam I crossing the road N5 from Medoneu to Kougouleu, western slopes of the Monts de Cristal, Gabon, 0°46'34.1"N 10°24'03"E, 29 Jul 2002, T. Blum, G. Fleck & R. Sonnenberg.

Paratypes: ZFMK 39833–39842 (10), same data as holotype; ZFMK 39843 (1), male, north of the village Assok, Gabon, 0°43'36.9"N 10°21'58.1"E, 11 Sept 2002, T. Blum & P. Sewer; ZFMK 39844–39846, same locality as holotype, Aug 1999, preserved after approximately 2 years in aquarium, F. Bitter, T. Blum & P. Sewer.

Type material in other collections: MRAC A4-42-P-1-4, same data as holotype; IRET (2), same data as holotype.

Callopanchax sidibei Sonnenberg & Busch, 2010
Bonn zool Bull 57: 6

Holotype: ZFMK 41613, male, 58.2 mm, small river and adjacent pools and ditches in a secondary forest, close to the small village Bombokoré, about 3 km from the closest larger village Fandi, Kindia region, Guinée maritime, Guinea, 9°32.71'N 13°14.51'W, 25 Oct 2008, E. Busch & B. Wiese.

Paratypes: ZFMK 41614–41615 (2), 47.0 (male)–55.4 (female) mm, same data as holotype; ZFMK 41616–41628 (13), 39.0–58.9 mm, same data as holotype.

Type material in other collections: Paratypes: MRAC 2010-02-P-1-5 (5), 46.3–59.9 mm, same data as holotype.

Chromaphyosemion koungueense Sonnenberg, 2007
Zootaxa 1591: 7

Holotype: ZFMK 39949, male, 24.3 mm, river Koungué, a small river in the forest near the village Koungué Ndonga at the road from Edea to Dizangue and Ndonga, Cameroon, 03°48'36.9"N 09°55'03.9"E, 4 Jan 2000, U. Kämpf, R. Sonnenberg & A. Tränkner.

Paratypes: ZFMK 39950–39955 (6), same data as holotype; ZFMK 39956–39957 (2), males, small creek crossing the road Mbambou to Mouanko, some kilometers in oil palm plantation in direction Mouanko, Cameroon, 03°42'48.8"N 09°51'28.2"E, 2003, H. Kullmann & M. Völker; ZFMK 39958–39959 (2), males, near the road from Edea to Kribi, Cameroon, 03°32'28.9"N 10°05'12.1"E, 6 Jan 2000, E. U. Kämpf, R. Sonnenberg & A. Tränkner; ZFMK 39960–39964 (5), small creek crossing the road from Edea to Kribi near the village Koukoué, Cameroon, 03°43'18.1"N 10°06'26.9"E, 14 Dec 2001, H. Kullmann, B. Misof & R. Sonnenberg; ZFMK 39965–39969 (5), small creek near the road Edea to Kribi, Cameroon, 03°36'29.2"N 10°06'26.2"E, 14 Dec 2001, H. Kullmann, B. Misof & R. Sonnenberg.

Type material in other collections: CENAREST (2), same collection data as ZFMK 39960–39964.

Chromaphyosemion melinoeides, Sonnenberg, 2007
Zootaxa 1591: 16

Holotype: ZFMK 40000, male, 25.1 mm, the first stream crossing the road from Kribi to Ebolowa after the village Akok in direction Ebolowa, Cameroon, 02°47'30.4"N 10°17'00.0"E, 17 Jan 2000, U. Kämpf, R. Sonnenberg & A. Tränkner.

Paratypes: ZFMK 39987–39988 (2), same data as holotype; ZFMK 39989–39997 (10), near the village Fenda at the road from Kribi to Ebolowa, Cameroon, 02°49'02.7"N 10°22'50.6"E, 17 Jan 2000, U. Kämpf, R. Sonnenberg & A. Tränkner; ZFMK 39998–39999 (2), males, small creek Mintang near the village Fenda on the road from Kribi to Ebolowa, Cameroon, 02°49'36.0"N 10°22'39.0"E, 8 Jan 1998, W. Eberl, U. Kämpf & A. Kliesch; ZFMK 40001–40003 (3), small creek crossing the road from Kribi to Ebolowa, near the village Njabilobé, Cameroon, 7 Jan 1998, W. Eberl, U. Kämpf, A. Kliesch; ZFMK 40004 (1), male, road from Kribi to Ebolowa, east of Akok, Cameroon, 02°47'56.2"N 10°18'55.3"E, 17 Jan 2000, U. Kämpf, R. Sonnenberg & A. Tränkner.

Type material in other collections: CENAREST, Batoke, Cameroon (1), male, same data as ZFMK 39998–39999;

CENAREST, Batoke, Cameroon (1), female, same data as ZFMK 40004.

Chromaphyosemion omega Sonnenberg, 2007
Zootaxa 1591: 12

Holotype: ZFMK 39970, male, 31.3 mm, small river Ngo Njock near the village Ndog Nyang, old road from Edea to Douala, Cameroon, 03°59'12.4"N 10°05'50.3"E, 5 Jan 2000, U. Kämpf, R. Sonnenberg & A. Tränkner.

Paratypes: ZFMK 39971–39980 (10), same data as holotype; ZFMK 39981–39986 (7), creek crossing the old road from Edea to Douala, near Bonépoupa, Cameroon, 04°06'30.1"N 10°01'12.6"E, 9 Oct 2001, H. Kullmann, B. Misof & R. Sonnenberg.

Type material in other collections: CENAREST, Batoke, Cameroon (1), male, same data as holotype; CENAREST, Batoke, Cameroon (1), female, same data as ZFMK 39981–39986.

Episemion krystallinoron Sonnenberg et al. 2006
Zootaxa 1361: 6

Holotype: ZFMK 39942, male, 27.9 mm, river near village of Nkinèn, crossing the road N5 from Médouneu to Kougouleu, northern part of the Monts de Cristal, Gabon, 0°58'06.3"N 10°41'33.5"E, 29 Jul 2002, T. Blum, G. Fleck & R. Sonnenberg.

Paratypes: ZFMK 39943–39945 (3), same data as holotype; ZFMK 39948 (1), male, same data as holotype; ZFMK 39946–39947 (2), river near Médouneu, at road N5, northern part of the Monts de Cristal, Gabon, 1°00'06.0"N 10°45'50.9"E, 24 Aug 1999, T. Blum, F. Bitter & P. Sewer.

Type material in other collections: MRAC 2006-09-P-1 (1), male, same data as holotype; IRET (uncat.) (1), male, same data as holotype.

Fundulopanchax kamdemi Akum, Sonnenberg, Zee & Wildekamp, 2007
Zootaxa 1532: 43

Paratypes: ZFMK 39900–39917 (18), small forest stream emptying in swampy pools, Korup Nationalpark, Cameroon, 05°00'20"N 08°47'01"E, Dec 2001, C. Akum; ZFMK 39918–39931 (14), juv., same data as ZFMK 39900–39917.

Type material in other collections: Holotype: MRAC A2-003-P-0001, male, small pools under forest cover, Korup Nationalpark, Cameroon, 05°05'N 08°52'E, 12 Jan 2001, G. Chiambeng; Paratypes: MRAC A2-003-P-0002–0003 (2), males, same data as holotype; MRAC 92-144-P-0384–0386 (3), 40.5–47.3 mm, west of science camp, Korup Nationalpark, Cameroon, 05°05'N 08°52'E; 19 Dec 1992, A. Kamdem Toham; IRAD Research Station Batoke, Limbe, Cameroon (4), small forest stream emptying in swampy pools, Korup Nationalpark, Cameroon, Dec 2001, C. Akum.

Nimbapanchax leucopterygius Sonnenberg & Busch, 2009
Zootaxa 2294: 11

Holotype: ZFMK 41481, male, 43.6 mm, Forêt Classée de Dieke, southeastern Guinea, 7°28.70'N 8°50.45'W, 16 May 2006, E. Busch & B. Wiese.

Paratypes: ZFMK 41482–41483 (2), females, same data as holotype.

Type material in other collections: MRAC 73-39-P-1897–1904 (8), N'zerekore, Guinea, Nov 1963–Feb 1964, H. Olsen; MRAC 75-26-P-01–04 (4) Salayea, Liberia, 7°37'N 9°30'W, 1971, E. Roloff; MRAC 81-19-P-114–116 (3), rivierte buiten Déoulé, zijrivierte van de Kilo op secundaire weg van Man naar Biankouma (rivulet near Déoulé, small tributary of the Kilo River, on secondary road from Man to Biankouma), Cote d'Ivoire, 24 Jul 1980, H. De Breuyn.

Remarks: Type species of *Nimbapanchax* Sonnenberg & Busch, 2009

Nimbapanchax melanopterygius Sonnenberg & Busch, 2009
Zootaxa 2294: 14

Holotype: ZFMK 41484, male, 42.9 mm, Cavally River, southeastern Guinea, 7°41.83'N 8°26.48'W, 15 May 2006, E. Busch & B. Wiese.

Paratypes: ZFMK 41485–41487 (3), females, same data as holotype; ZFMK 41488–41493 (6), near Kementa in the Konkere river, southeastern Guinea, 7°43.83'N 8°26.49'W, 15 May 2006, E. Busch & B. Wiese.

Type material in other collections: MRAC 2008-16-P-1–4 (4), same data as ZFMK 41488–41493; ZSM 37485 (4), same data as ZFMK 41488–41493.

Nothobranchius kafuensis Wildekamp & Rosenstock, 1989

Aquar Terrar Z 42: 417

Holotype: ZFMK 13951, male, 50.2 mm, seasonal pool in Kafue National Park, 5 km south of Chunga-camp, 100 m from Kafue River, Zambia, 26°00'E 15°03'S, 20 Feb 1983, K. Oestergaard.

Paratype: ZFMK 13952 (1), female, 36.0 mm, same data as holotype.

Type material in other collections: Paratypes: MRAC 89-07-P-1 (1), male, 43.8 mm, same data as holotype; AM PF 1542 (5), males, seasonal pool of Kafue river system, Kafue National Park, Zambia, 25°45'E 16°10'S, G. Bell-Cross.

Nothobranchius luekei Seegers, 1984

Aquar Terrar Z 37: 250

Holotype: ZFMK 13551, male, 40.4 mm, bridge across Mbezi at road to Kibiti, about 40 km south of Dar es Salaam, East Tanzania, Jan 1983, L. Seegers & H. J. Wischmann.

Paratypes: ZFMK 13552, female, 27.8 mm, same data as holotype; ZFMK 13553–13556 (4), 22.8–27.0 mm, F1 aquarium bred.

Type material in other collections: Paratypes: BMNH 1984.3.22.1–2 (2), 27.1–29.0 mm, same data as holotype.

Nothobranchius rubripinnis Seegers, 1986

Aquar Terrar Z 39: 19

Holotype: ZFMK 13941, male, 26.8 mm, bridge across Mbezi at road to Kibiti, about 40 km south of Dar es Salaam, East Tanzania, Jan 1983, L. Seegers & H. J. Wischmann.

Paratypes: ZFMK 13942–13946 (5), 19.3–29.6 mm, same data as holotype; ZFMK 13947–13949 (3), females, 21.7–24.1 mm, few hundred meters northeast of River Mbemkuru at road from Lindi to Kilwa, East Tanzania, 30 Jun 1985 [label in conflict with original description, showing same collection data as holotype].

Type material in other collections: Paratypes: ZMB 31546–31547 (4), 22.0–26.9 mm, same data as holotype; NRM (4), 21.2–27.1 mm, same data as holotype; MRAC KTZ 85/28 (4), 21.7–25.2 mm, few hundred meters north of River Mbemkuru at road from Lindi to Kilwa, East Tanzania, 30 Jun 1985, [no collector provided].

Bonn zoological Bulletin 59: 109–136

Paranothobranchius ocellatus Seegers, 1985

J. Deutsche Killifisch Gem, Suppl 1: 47

Holotype: ZFMK 13927 (but see below), male, 50.0 mm, swamp between Mtanza and northern entrance of Selous Game Reserve, north of Rufiji, East Tanzania, 31 Dec 1980, G. Eggers, C. Kasselmann & L. Seegers.

Remarks: The author has received collection number ZFMK 13927 prior to description and deposition of the specimen in Bonn. ZFMK did however not receive the specimen so far; deposition of the holotype has accordingly not taken place. Type species of *Paranothobranchius*.

Current status: Valid as *Nothobranchius ocellatus* (Seegers, 1985) (Lazara 2001: 225).

Roloffia banforensis Seegers, 1982

Aquar Terrar Z 35: 449

Holotype: ZFMK 12155, male, 26.8 mm, Comoé drainage, 15 km north of Banfora, 85 km southwest of Bobo Dioulasso, Obervolta, Oct 1980, B. Bauer.

Paratypes: ZFMK 12156–12162 (7), same data as holotype.

Type material in other collections: Paratypes: MNHN 60-131 (7), road from Banfora to Sindou, Obervolta, 9 Nov 1959, J. Arnoult & d'Auberton; SMF 17679–17681 (3), 21.0–36.2 mm, aquarium bred.

Current status: Valid as *Scriptaphyosemion banforensis* (Seegers, 1982) (Lazara 2001: 289).

RIVULIDAE

Cynolebias pantanalensis Seegers, 1988

Aquar Terrar Z 41: 31

Holotype: ZFMK 15534, male, 21.6 mm, close to road Transpantaneira between Poconé and Corumbá (Mato Grosso), about 45 km south of Poconé, drainage of Rio Sararé and Rio Paraguai, Mato Grosso, Brazil, about 56°50'W 16°43'S, 1 Aug 1987, W. Staack et al.

Paratypes: ZFMK 15535–15541 (7), 23.9–26.1 mm, same data as holotype; ZFMK 15542, female, 24.1 mm, small inlet of Rio Cuiabá, about 5 km north of Porto Cercado at road Poconé to Porto Cercado, Brazil, about 56°23'W 16°33'S, 30 Mar 1986, W. Staack.

Type material in other collections: Paratypes: MZUSP [no collection number provided] (4), 17.2–20.4 mm, same data as holotype.

Current status: Synonym of *Plesiolebias glaucopterus* Costa & Lacerda, 1988 (Costa 1991: 375).

Pterolebias rubrocaudatus Seegers, 1984
Bonn zool Beitr 35: 243

Holotype: ZFMK 13413, male, 31.5 mm, Río Tambopata area, 7 km from Puerto Maldonado, Río Madre de Dios drainage, Southeast Perú, 25–28 Apr 1981, K. Elgner & E. Lenkenhoff.

Paratype: ZFMK 13414, female, 29.4 mm, same data as holotype.

Current status: Valid as *Aphyolebias rubrocaudatus* (Seegers, 1984) (Costa 1998: 78).

Pterolebias staecki Seegers, 1987
Aquar Terrar Z 40: 202

Holotype: ZFMK 14597, male, 52.7 mm, swampy lagoon of Lago Janahuacá, south of Río Amazonas, not far upstream of confluent with Río Negro, southwest of Manaus, Brazil, about 60°16'W 3°25'S, 20 Mar 1986, W. Staack.

Paratypes: ZFMK 14598, female, 40.8 mm, same data as holotype; ZFMK 14599–14601 (3), 30.5–41.2 mm, same data as holotype.

Type material in other collections: MZUSP [no collection number provided] (2), 39.1–33.5 mm, aquarium bred.

Current status: Valid as *Moema staecki* (Seegers, 1987) (Costa 1993: 623).

Pterolebias wischmanni Seegers, 1983
J Deutsche Killifisch-Gemeinschaft 15: 68

Holotype: ZFMK 11534, male, Ucayali drainage 120 km south of Pucallpa, Perú, Jul 1981 (preserved Feb 1982), H. J. Wischmann & H. Fries.

Paratypes: ZFMK 11535–1536 (2), females, same data as holotype.

Type material in other collections: Paratypes: BM 1983.6.9.2–82 (3), males, aquarium bred of holotype and a paratype.

Bonn zoological Bulletin 59: 109–136

Current status: Valid as *Aphyolebias wischmanni* (Seegers, 1983) (Costa 1998: 78).

Rivulichthys luelingi Meinken, 1969
Bonn zool Beitr 20: 423

Holotype: ZFMK 2091, male, 36.0 mm, hollow closeby Río Chaperé, about 4 km from village Todos Santos, East Bolivia, 8 Oct 1966, K. H. Lüling.

Paratypes ZFMK 2092–2095 (11), same data as holotype.

Current status: Synonym of *Pterolebias longipinnis* Garman, 1895 (Thomerson 1984: 528).

Rivulus bolivianus Seegers, 1988
Bonn zool Beitr 39: 173

Holotype: ZFMK 14602, male, 24.1 mm, lagoon “Suarez”, Río Mamoré drainage, about 4 km southeast of Trinidad, Bolivia, 24 Aug 1985, H. Linke & W. Staack.

Paratypes: ZFMK 14603–14609 (7), same data as holotype.

Current status: Synonym of *Rivulus beniensis* Myers, 1927 (Costa in Reis et al. 2003: 534).

Rivulus caudomarginatus Seegers, 1984
Zool Beitr 28: 307

Holotype: ZFMK 12848, male, Greta Funda, south of Rio de Janeiro, Brazil, Jul–Aug 1981, R. A. Ferreira.

Paratypes: ZFMK 12849 (1), female, same data as holotype; ZFMK 12850–12854 (5), males, aquarium bred; ZFMK 12855–12859 (5), females, aquarium bred.

Type material in other collections: Paratypes: SMF 17864 (4), aquarium bred; BM 1983.6.9. 16–19 (4), aquarium bred; ZMA 119096 (4), aquarium bred; ZMB 31349(4), aquarium bred; MZUSP [no number published] (4), aquarium bred.

Current status: Valid as *Kryptolebias caudomarginatus* (Seegers, 1984) (Costa 2004: 107).

***Rivulus derhami* Fels & Huber, 1985**

Rev fr Aquariol 12: 33

Paratypes: ZFMK 2071–2090 (20), Universidad Agraria de Tingo María, Perú, May 1966, K. H. Lülíng; ZFMK 7813 a (66), same locality as ZFMK 2071–2090, 28 Apr 1972, K. H. Lülíng.

Type material in other collections: Holotype: MNHN 1985–577, male, 38.5 mm, area of the Universidad Agraria de Tingo María, Perú, 23 Aug 1981, P. de Rham; Paratypes: MNHN 1985–578 (2), females, same data as holotype; MNHN 1985–579 (9), same data as holotype; MNHN 1985–580 (5) aquarium bred, stock collected by Lülíng; MNHN 1985–581 (4), 3 km east of Tingo María, 18 Oct 1976, A. C. Radda; MNHN 1985–582 (6), aquarium bred, stock collected by P. de Rham.

***Rivulus erberi* Berkenkamp, 1989**

Das Aquarium 23 (No. 238): 211

Paratypes ZFMK 14820–14822 (3), 35.0–39.4 mm, 7 km east of Coca (= Puerto Francisco Orellana), near Río Napo, Napo Prov., East Ecuador, 4°30'00"S 76°54'00"W, 8 Mar 1983, H. Heinemann, H. Heidt & K. Wilke.

Type material in other collections: Holotype: SMF 18432, male, 40.2 mm, same data as ZFMK 14820–14822; Paratypes: SMF 18433, 26.7–35.0 mm, same data as ZFMK 14820–14822; MHNG 22281.04 (2), 19.4–35.0 mm, same data as ZFMK 14820–14822.

***Rivulus luelingi* Seegers, 1984**

Zool Beitr 28: 264

Holotype: ZFMK 11671, male, near Rio Pirai at Joinville, Southeast Brazil, 25 Oct 1982, K. H. Lülíng.

Paratypes: ZFMK 11672, female, 20 km southwest of Joinville, Southeast Brazil, 22 Sept 1980, K. H. Lülíng; ZFMK 11673–11682 (10), same locality as holotype, 10 Oct 1980.

Type material in other collections: Paratypes: SMF 17585 (9), same data as holotype; ZMB 31347 (3), same data as holotype; BM, 1983.6.9. 14–15 (2), same data as holotype.

POECILIDAE***Aplocheilichthys maculatus lacustris* Seegers, 1984**

Rev Zool afr 98: 76

Holotype: ZFMK 12323, male, Kibiti, about 140 km south of Dar es Salaam, Tanzania, 26 Dec 1981, L. Seegers & W. Claßen.

Paratypes: ZFMK 12324–12326 (3), same locality as holotype, 31 Dec 1980, L. Seegers, C. Kasselmann & G. Eggers; ZFMK 12327–12334 (8), same locality, 26 Dec 1981, L. Seegers & W. Claßen, fixed Aug 1982.

Type material in other collections: Paratypes: SMF 17689 (4), males, and SMF 17690 (1), female, aquarium bred, fixed in Aug 1982; MRAC 83-21-P-1-4 (4), males and MRAC 83-21-P-5 (1), female, aquarium bred, fixed in Aug 1982; ZMB 31319 (4), aquarium bred, fixed in Oct 1982.

Current status: Valid as *Lacustricola lacustris* (Seegers, 1984) (Huber 1999: 58).

ADRIANICHTHYIDAE***Oryzias hadiatyae* Herder & Chapuis, 2010**

Raffles Bull Zool 58: 271

Paratypes: ZFMK 41540–41550 (11), 31.6–40.3 mm, Lake Masapi, southern shore between 2°50.837'S 121°21.116'E and the lake's outlet, approx. 600 m westwards of this position, Larona drainage, South Sulawesi Province, Sulawesi, Indonesia, 15–16 Apr 2004, F. Herder, J. Pfaender, J. Schwarzer & R. K. Hadiaty.

Type material in other collections: Holotype: MZB 18491, 34.2 mm, male, same data as ZFMK 41540–41550; Paratypes: MZB 18492–18506 (15), 22.5–44.6 mm, same data as ZFMK 41540–41550; ZSM 39760–39766 (7), 28.4–43.7 mm, same data as ZFMK 41540–41550; ZRC 51984 (4) 28–46.1 mm, same data as ZFMK 41540–41550.

CICHLIDAE***Aequidens patricki* Kullander, 1984**

Rev fr Aquariol 11: 2

Paratypes: ZFMK 10766–10767 (2), males, 97.7–104.5 mm, tributary of Río Pachitea, Quebrada Pacal, near Panguana, basin of Río Pachitea, dept. Huanuco, Perú, about 09°37'S 74°56'W, 11 Sep 1976, K. H. Lülíng; ZFMK

10769 (1), sex indet., 37.6 mm, Quebrada near Panguana, basin of Río Pachitea, about 09°37'S 74°56'W, 10 Sep 1976, K. H. Lüling; ZFMK 10770–10771 (2), juv., 17.9–20.2 mm, tributary of Río Lullapichis, basin of Río Pachitea, Sira mountains; 17 Sep 1976, A. Hanrieder & W. Foersch; all dept. Huánuco, Perú.

Type material in other collections: Holotype: MHNG 2163.93 (1), female, 116.2 mm, small brook from a drying pool, along the road from Pucallpa to Tingo Maria, 15 km west of the village of Aguaytía, tributary of Río Aguaytía, Coronel Portillo Prov., depto. Ucayali, Perú, about 09°02'S 75°31'W, 24 Aug 1981, P. de Rham, H. Nijssen, H. J. Franke & C. Villanueva; Paratypes: NRM A82/1976376.3458 (1), female, 93.8 mm (former number ZFMK 10768), same data as ZFMK 10766–10767; additional paratypes in following collections: IRSNB 700 (1); MHNG 2163.94 (1); NRM 17760[ex A82/1976376.3458]; ZMH 6427 (1), 6435 (2) (see Kullander 1986: 383).

Apistogramma arua Römer & Warzel, 1998
Aqua J Ichth and Aquat Biol 3: 46

Paratypes: ZFMK 18599 (1), female, 34.3 mm, same data as holotype, A. Krüger, F. Warzel, M. Loew & R. Zgorniak; ZFMK 18601 (1), male, 34.5 mm; ZFMK 18605 (1), female, 11.6 mm, 2.5 km upstream of the village of Aruá in a small right-bank affluent of Río Aruá, Pará State, Brazil, 14 Sep 1995, A. Krüger, F. Warzel, M. Loew & R. Zgorniak [specimens 18601 and 18605 were preserved in Oct 1995 after keeping in aquaria].

Type material in other collections: Holotype: MZUSP uncat., male, 44.4 mm, about 2.5 km upstream of the village of Aruá in a small right-bank affluent of Río Aruá, tributary of Río Arapiúns, Pará State, Brazil, about 02°39'27"S 55°43'24"W, 14 Sep 1995, A. Krüger & F. Warzel [preserved in May 1996 after keeping in aquaria].

Apistogramma baenschi Römer, Soares & Wöhler, 2004
Das Aquarium 38 (No. 422): 16

Paratypes: ZFMK 39828–39831 (4), tributary of Río Shanushi, lower Río Hualaga system, Perú, near 6°03'S 77°53'W, Mar 2003, J. Melgar.

Type material in other collections: Holotype: MTD F 26965, same data as ZFMK 39828–39829. Paratypes: CAS 219381–86 (6), 219388–92 (5); MTD F 26964 (1), F 28102–08 (7), F 28109–14 (6); SMF 29765a–b (2), 29765c–d (2).

Apistogramma eunotus Kullander, 1981
Bonn zool Beitr 32: 183.

Holotype: ZFMK 10772, male, 49.9 mm, way to Aguayta near Pucallpa, Perú, 3 Sep 1978, K. H. Lüling.

Paratypes: ZFMK 10773, female; ZFMK 10774, juv., same data as holotype.

Type material in other collections: Paratypes: BM 1913.7.30: 56–57 (2), sex indet., Río Ucayali, Perú, no date, Mounsey; MCZ 15807 (2), Tabatinga Solimoes, East Amazon river system, Sep–Oct 1865, Thayer-Expedition: D. Bourget; MHNG 1583.50, female, Jenaro Herrera, Río Ucayali-system, distr. Loreto, Perú, 18 Oct 1977, P. de Rahm; NRM 1971365: 3057, female, Lago Matamata, distr. Loreto, Perú, 10 Oct 1971, T. Hongslo; NRM 1976312: 0914–0923 (10), “Caño Comprido”, San Sebastián, Río Yavarí, distr. Loreto, Perú, 27 Jul 1976, T. Hongslo; NRM 1876311: 1164–1168 (5), 26 Jul 1976, same data as previous specimens.

Apistogramma linkei Koslowski, 1985
Bonn zool Beitr 36: 151

Holotype: ZFMK 13323, male, 36.9 mm, northwest of Santa Cruz, Bolivia, [type locality unclear]; Original description and label: In lagoons along the road between the villages Portachuelo and Bellavista, 76 km northwest of Santa Cruz, Bolivia, about 68°25'W 16°20'S, small water bodies along the road and small and low watercourse which crosses the road and lagoon at the road 2 km eastern of the village Japacani at Río Japacani, northwest of Santa Cruz, Bolivia, about 68°50'W 16°15'S, Jul 1983, H. Linke & W. Staack.

Paratypes: ZFMK 13324–13327 (4), 24.9–28.6 mm; ZFMK 13328–13362 (35), all same data as holotype; ZFMK 13320–13322 (3), 18.5–27.0 mm, in a course of a stream 4 km in front of Okinawa, west of Montero Guabira in direction to Río Grande, about 62°50'W 17°12'S, Jul 1983, H. Linke & W. Staack; ZFMK 13363–13367 (5), 21.1–30.3 mm; ZFMK 13368–13393 (26), 16.0–24.4 mm, in lagoons and backwater along the road from Trinidad to west, about 1 km in front of the village of Pto. Amacen at the Río Mamoré, Bolivia, about 64°58'W 14°53'S, 11 Jul 1983, H. Linke & W. Staack; ZFMK 13394–13399 (6), 21.5–27.0 mm, in lagoons and remains of river water at the road from Trinidad to east, about 10 km in direction to Peroto, east of the town Trinidad, Bolivia, about 64°48'W 14°49'S, 12 Jul 1983, H. Linke & W. Staack; ZFMK 2268–2273 (6), pond like backwater, 1.5 km downstream of San Francisco, Río Chipiriri, Bolivia, 4 Oct 1966, K. H. Lüling; ZFMK 2303

(1), 25.2 mm, brook between Río Chaparé and Río Mamoré, Bolivia, 9 Oct 1966, K. H. Lüling & A. Meyer.

Type material in other collections: Paratypes: MZUSP 28726 (8), 17.7–25.7 mm; NRM A 83/1983273.3046 (7), 16.3–34.7 mm, all same data as holotype; BMNH 1985, 1.28 (5), 20.1–23.9 mm; IRSNB 724 (6), 18.6–25.0 mm; NRM A 83/1983281.3054 (7), 16.3–25.1 mm; ZMA 119.629 (6), 18.6–23.7 mm, all west of the town Trinidad, in lagoons and backwater along the road from Trinidad to west, 1 km in front of Pto. Amacen at the Río Mamoré, Bolivia, about 64°58'W 14°53'S, 11 Jul 1983, H. Linke & W. Staack; NRM A 84/1983166/3061 (3), 19.7–27.2 mm, Laguna Suarez, near Trinidad, Río Mamoré system, depto. Beni, Bolivia, 23 Apr 1983, G. Loubens & L. Lauzanne; NRM A 84/1982118.3062 (5), 27.6–42.1 mm, Arroyo San Juan, near Trinidad, depto. Beni, Río Mamoré system, Bolivia, Mar 1982, G. Loubens & L. Lauzanne; IRSNB 695 (former IRSNB 19.975) (1), female, 25.6 mm, tributary to the Río San Miguel, Río Surucusi, road from Ascesión, 14 km north of Limón, Río Guaporé system, depto. Santa Cruz, Bolivia, 9 Nov 1977, J.-P. Gosse.

Apistogramma luelingi Kullander, 1976
Bonn zool Beitr 27: 259

Holotype: ZFMK 2283, male, 26.4 mm, downstream of Todos Santos, Bolivia, 3 Oct 1966, K. H. Lüling & A. Meyer.

Paratypes: ZFMK 2284–2291 (8), 18.2–29.0 mm, same data as holotype.

Apistogramma martini Römer, Hahn, Römer, Soares & Wöhler, 2003
Das Aquarium 37 (No. 406): 15

Paratypes: ZFMK 39412–39421 (10), small tributary of the Río Nanay near the village of Alvarenga (formerly Puerto Alianza), distr. Santa Maria, Maynas Prov. (formerly Iquitos), dep. Loreto, Perú, about 74°25'40''W 03°31'10''S, 19 Oct 2002, M. Mortenthaler.

Type material in other collections: Holotype: MTD F 26849 (1), female, 30.2 mm, same data as ZFMK 39412–39421; Paratypes: MTD F 26850–26858 (9); MTD F 26945–26963 (19); MTD F 26957–26958 (2); CAS 216883–87 (5), males; CAS 216878–82 (5), females; SMF 29331a–e (5), males; SMF 29332a–e (5), females; ZMB 33329–33333 (5), males; ZMB 33334–33338 (5), females; all same data as ZFMK 39412–39421.

Apistogramma mendezi Römer, 1994
Aqua J Ichth and Aquat Biol 1: 5

Holotype: ZFMK 17458, male, 34.5 mm, Rio Salgado, near Barcelos do Rio Negro, Dept. Amazonas, Brazil, about 0°01'S 63°04'W, 19 Oct 1991, U. Römer.

Paratypes: ZFMK 17459 (1), female; ZFMK 17462 (1), male; 17502 (1), male; 17461 (1), male [cleared and stained], all same data as holotype, U. Römer, A. Schneider & W. Windisch; ZFMK 17460 (1), male; ZFMK 17463 (1), male; ZFMK 17501 (1), male; ZFMK 17504 (1), male, all same data as holotype; ZFMK 17503 (1), male, same locality as holotype, 22 Aug 1992, M. Geismann, S. Leissner, U. Römer & A. Schneider [ZFMK 17460, 17463, 17501, 17504 were preserved after 6 months of keeping in aquaria].

Type material in other collections: Paratypes: INPA UR 91024 (1); INPA UR 91027 (1); INPA UR 91169 (1); INPA UR 91209 (1); all same data as holotype, U. Römer, A. Schneider & W. Windisch; INPA UR 91170 (1), male; INPA UR 91172 (1), male; all same locality as holotype, 22 Aug 1992, M. Geismann, S. Leissner, U. Römer & A. Schneider; INPA UR 91205 (1); INPA UR 91217 (1); all same data as holotype [preserved after six months of keeping in aquaria].

Apistogramma panduro Römer, 1997
Buntbarsche Bulletin 182: 12

Holotype: ZFMK 18610, male, 37.5 mm, small forest brooks east of Jenaro Herrera aside the road heading to the Brazilian border at kilometers 26 and 27, Rio Ucayali-system, Prov. Loreto, Perú, Jun 1996, professional collectors of exporter Jesus Victoriano Panduro Pinedo, dedicated in early June 1996 after import by Aquarium Glaser (Rodgau, Germany), preserved immediately after import by F. Schäfer and U. Römer.

Paratypes: ZFMK 18580–18582 (3), 25.6–29.5 mm; ZFMK 18609 (1), male, 43.7 mm; ZFMK 18611–18616 (6), 25.7–48.4 mm; ZFMK 18620 (1), male, 38.3 mm, all same data as holotype.

Type material in other collections: Paratypes: SMF 28206–08 a–d (6), same data as holotype.

Apistogramma paucisquamis Kullander & Staack, 1988
Cybium 12: 190

Paratypes: ZFMK 15496–15500 (5), archipiélago das Anavilhanas, small shallow bay on the right bank of Rio

Negro, Estado do Amazonas, Brazil, 27 Mar 1986, W. Staeck.

Type material in other collections: Holotype: MZUSP 36952 (1), male, same data as ZFMK 15496–15500; Paratypes: NRM A 86/1986134.3587 (15); USNM 289281 (5); MZUSP uncat. (4), all together 16.4–28.9 mm, same data as holotype; NRM A 86/1986134.3594 (5), males, 26.2–31.2 mm, baylet with small clear water creek at right bank of Río Negro, arquipiélago das Anavilhanas, Brazil, 27 Mar 1986, W. Staeck; MZUSP 28210 (57); NRM A 83/1980077.3058 (4), downstream of Rio Darã, central lake in Rio Negro, 17 Feb 1980, M. Goulding.

Apistogramma rubrolineata Hein, Zarske & Zapata, 2002
Das Aquarium 36 (No. 402): 16

Paratypes: ZFMK 39241–39242 (2), 23.5–26.4 mm, near the village of Puerto Cardenas, Río Manuripi, Departamento Pando, Bolivia, about 11°20'083"S 67°44'576"W, 12 May 2001, G. Hein, H. Längert, J. Zapata & A. Zarske.

Type material in other collections: Holotype: MTD F 26 477, 40.0 mm; Paratypes: CIRA UTB 970 a–e (5), 17.0–25.7 mm; MTD F 26 478–26–486 (9), 14.5–40.0 mm; NMW 94 645–94 646 (2), 26.5–28.0 mm, all same data as ZFMK 39241–39242.

Apistogramma similis Staeck, 2003
In Staeck: Cichliden Lexikon 3: 76

Paratypes: ZFMK 39800–39801 (2), forest brook at the Laguna La Brava, Río Yata system, Beni Prov., Bolivia, 2001, W. Staeck.

Type material in other collections: Holotype: MTD F 27038, 38.1 mm; Paratypes: MTD F 27039 (1); MTD F 27482–27484 (3); additional paratypes at NMW and ZMB [no collection numbers provided]; all same data as ZFMK 39800–39801.

Apistogramma staecki Koslowski, 1985
Bonn zool Beitr 36: 146

Holotype: ZFMK 13400, 20.8 mm, male, in lagoons on both sides of the road, 10 km south of Trinidad in the direction of El Colegio and Loreto, Bolivia, about 64°51'W 14°57'S, 12 Jul 1983, H. Linke & W. Staeck.

Paratypes: ZFMK 13401–13404 (4), 17.7–20.8 mm, same data as holotype; ZFMK 13405–13410 (6), 19.5–20.7 mm, in lagoons with a remain of river water, about 10 km east of Trinidad in direction of Peroto, Bolivia, about 64°48'W 14°49'S, 12 Jul 1983; same collectors as holotype.

Bonn zoological Bulletin 59: 109–136

Type material in other collections: SMF 18855 a–h (8), 14.7–20.4 mm; MZUSP 28725 (2), females, 15.0–19.4 mm; NRM A 83/1983282.3053 (7), 15.7–20.9 mm, all same data as holotype.

Apistogramma tucurui Staeck, 2003
In Staeck: Cichliden Lexikon 3: 112

Paratype: ZFMK 39802 (1), brook in Rio Tocantins system, at highway 150, 10 km south of Jacunda, Pará, Brazil, 1989, W. Staeck.

Type material in other collections: Holotype: MTD F 27046; Paratypes: MTD F 27047 (1); MTD F 27487–27488 (2); additional paratypes at NMW and ZMB [no collection numbers provided]; all same data as ZFMK 39802.

Bujurquina huallagae Kullander, 1986

In Kullander (1986): Cichlid Fishes of the Amazon River drainage of Peru. Swedish Museum of Natural History, Stockholm: 290

Paratypes: ZFMK 2152–2168 (17), lower course of Río Subte, downstream of Tingo María, about 1 km in front of the mouth into the Río Huallaga, 30 Jun 1965; ZFMK 2184–2187 (4), lower Río Monzón, 10 km upstream of Tingo María, 3 Jun 1966; ZFMK 2318 (1), brook near Tingo María, just before the hospital, 500 m in front of the mouth into the Río Huallaga, 2 Jun 1966; ZFMK 8659–8664 (6), near the hospital, Tingo María, 12 Nov 1974; ZFMK 2190 (1), left bank of Río Huallaga, opposite to Tingo María, 22 Jun 1966; all Huallaga river system, departamento Huánuco, Perú, all leg. K. H. Lüling.

Type material in other collections: Holotype: ANSP 158171 (1), male, 75.4 mm, about 0.25 miles above Río Huallaga, vicinity of Tingo María, Río Huallaga drainage system, dept. Huánuco, Perú, 30 Sep 1955, Catherwood Expedition, C. C. G. Chaplin, M. H. Hohn; additional 45 paratypes in following collections: ANSP 139109 (1), 139110 (11), 139112 (3), 139114 (5), 139116 (3), 139143 (1), 158172 (9); MHNG 2233.66 (1), 2205.01 (4), 2205.06 (4); NRM 17594 (1) (see Kullander op. cit.: 375–376).

Cichlasoma amazonarum Kullander, 1983

Revision of the South-American cichlid genus *Cichlasoma*. Swedish Museum of Natural History, Stockholm: 117

Paratypes: ZFMK 13451–13460 (10), brook Aguajal, Ucayali river system, 3 Sep 1978; ZFMK 2225–2230 (6), Chauahuán Cocha, Ucayali-system upstream of Pucallpa,

Aug 1966; ZFMK 2300–2301 (2), Yarina Cocha, Ucayali-system, 19 Jul 1966; ZFMK 1125–1126 (2), Caño Yarina, depto. Loreto, Perú; 31 Aug 1959; ZFMK 8655–8656 (2), between Paca Cocha and Yarina Cocha, 9 Aug 1974; ZFMK 8657–8658 (2), Quebrada near Yarina Cocha, 9 Aug 1974; ZFMK 2191–2192 (2), Yarina Cocha, 16 Jul 1966; ZFMK 2205–2211 (7), Yarina Cocha, 19 Jul 1966; ZFMK 2233 (1), Río Ucayali, opposite of Pucallpa, 12 Jul 1966; ZFMK 1118–1120 (3), bank of Amazon upstream of Iquitos, 8–16 Aug 1959; ZFMK 7802–7806 (5), Quisto Cocha, Amazon system, depto. Loreto, 10 May 1972; all from Perú, all leg. K. H. Lüling.

Type material in other collections: Holotype NRM (SOK) 3651, floating meadow near mouth, right bank tributary of the Río Ampiyacu, Sacarita del Tuyé, little upstreams of Pebas, Ampiyacu system, depto. Loreto, Perú, 12 Aug 1981, S. O. Kullander & A. Hogeborn; additional paratypes in following collections: ANSP, BM, FMNH, IRSNB, MCZ, MHNG, MNHNP, MZUSP, NHMW, NRM, USNM and ZMA [there are discrepancies between published numbers and museum records].

Cichlasoma boliviense Kullander, 1983

Revision of the South-American cichlid genus *Cichlasoma*. Swedish Museum of Natural History, Stockholm: 165

Paratypes: ZFMK 2199 (1), downstream of Pto. San Francisco, Río Chipirí, Mamoré system, depto. Santa Cruz, Bolivia, 4 Oct 1966, K. H. Lüling; ZFMK 2275–2282 (8), and ZFMK 2299 (1), Todos Santos “Hoffmann-lagoon”, Río Chapare, Mamoré system, Bolivia, 7 Oct 1966, K. H. Lüling; ZFMK 2219–2221 (3), 4 km downstream of Todos Santos, Bolivia, 8 Oct 1966, K. H. Lüling; ZFMK 2212–2213 (2), downstream of Pto San Francisco, Bolivia, 3 Oct 1966, K. H. Lüling; ZFMK 2305–2310 (6), 4 km downstream of Todos Santos, Bolivia, 30 Sep 1966, K. H. Lüling; ZFMK 13461–13464 (4), Río Tambopata near Puerto Maldonado, Madre de Dios system, Perú, 25–28 Apr 1981, E. Lenkenhoff; ZFMK 13465 (1), Puerto Maldonado, Perú, 6 Apr 1981, E. Lenkenhoff.

Type material in other collections: Holotype: IRSNB 677 (1), male, 75.9 mm, Río Uruguaito, River Guaporé basin, tributary of Río Quizer, 13 km south of San Xavier, depto. Santa Cruz, Bolivia, 4 Nov 1977, J.-P. Gosse; additional paratypes in following collections: ANSP, BM, FMNH, IRSNB and USNM.

Crenicichla sedentaria Kullander, 1986

Cichlid Fishes of the Amazon River drainage of Peru. Swedish Museum of Natural History, Stockholm: 83

Paratypes: ZFMK 2141 (1), branch of Río Huallaga near Aspusana, 70 km downstream of Tingo María, Perú; 19 Jun 1966, K. H. Lüling; ZFMK 2142–2143 (2), Río Huallaga near Aspusana, same data as ZFMK 2141; ZFMK 10765 (1), branch of Pacal near Panguana, Lullapichis, Pachitea, Perú, 11 Sep 1976, K. H. Lüling.

Type material in other collections: Holotype: USNM 229057 (1), probable male, 104.4 mm, near San Pedro de Longin, Río Yamushimas, Río Pachitea drainage system, depto. Pasco, Perú, 24 Jul 1981, P. Bayley. The total number of paratypes amounts to 83 specimens in the following collections: ANSP (59 in 8 lots); BMNH 1969.7.15.55 (1); 1969.7.23.4 (1); CAS 57455 (1); FMNH 84259 (2); 84268 (3); FMNH (1) [no number provided]; MCZ 48326 (1); MHNG (3 in 2 lots); NRM 12293 (2); 13577 (2); 13778 (1); USNM 229053 (1); ZMH 6443 (2).

Neolamprologus cylindricus Staack & Seegers, 1986

Aquar Terrar Z 39: 448

Holotype: ZFMK 14595, 83.6 mm, Lake Tanganyika, south of the mouth of the Kalambo River, near Chipwa, Zambia, 8°38'S 31°14'E, 3 Aug 1986, W. Staack.

Paratype: ZFMK 14596 (1), 66.1 mm, same data as holotype, L. Seegers.

Paratheraps breidohri Werner & Stawikowski, 1987

Aquar Terrar Z 41: 20

Holotype: ZFMK 15524, juv., 59.6 mm, Presa de Angostura, below the dam wall, Chiapas, Mexico, 16 Apr 1987, U. Werner, R. Stawikowski, E. Sosna & I. Kranz.

Paratypes: ZFMK 15525–15531 (7), 40.3–73.5 mm, same data as holotype.

Remarks: Type species of *Paratheraps* Werner & Stawikowski, 1987

Current status: Valid as *Vieja breidohri* (Werner & Stawikowski, 1987) (Burgess 2000: 50).

Pseudocrenilabrus multicolor victoriae Seegers, 1990

Aquar Terrar Z 43: 100

Holotype: ZFMK 16252, male, 60.8 mm, stream which connects two marsh districts on both sides of the road Kampala-Masaka, southwest of Mpugwe, about 14 km northeast of Masaka, distr. Masaka, Southwest Uganda, about 0°36'N 31°41'E, [no collection date provided], U. Renninger & L. Seegers.

Paratypes: ZFMK 16253–16255 (3), 51.9–69.8 mm, same data as holotype; ZFMK 16256–16263 (8), 18.9–49.3 mm, way from Lake Nabugabo to Masaka, 10 km northwest of Lake Nabugabo, West Uganda, 26 Mar 1988; ZFMK 16264–16265 (2), males, 30.9–32.4 mm, stream crossing road to Kabale about 27 km west of Mbarara and 6 km east of Kabwohe, West Uganda, 26 Mar 1988; ZFMK 16266–16268 (3), 33.2–49.3 mm, near Kyenjojo, 2 km in front of the branch of the road from Fort Portal to Kampala and Hoima, West Uganda, 2 Apr 1988; ZFMK 16269–16272 (4), 26.3–41.9 mm, west of Ngogwe, road which leads south of the main street Kampala-Jinja from Mukono via Nkokonjeru to Jinja, Uganda, 5 Apr 1988; ZFMK 15313 (1), male, 30.2 mm, in Ahero in a pond west of the branch of the federal road A1 and B1 to Kisumu, Kericho and Kisii, Kenya, 1 Jan 1987, all same collectors as holotype.

Type material in other collections: Paratypes: ZMB [no collection numbers provided] (3), 52.2–63.1 mm, same data as holotype; ZMB [no collection numbers provided] (2), 44.2–62.2 mm, same data as ZFMK 16256–16263; SMF 23436 (3), 34.5–58.1 mm, same data as ZFMK 16256–16263; SMF 23437 (5), juv., 18.3–32.0 mm, same data as ZFMK 16264–16265.

Theraps coeruleus Stawikowski & Werner, 1987
Aquat Terrar Z 40: 499

Holotype: ZFMK 15501, 77.0 mm, little tributary to Río Mizol Há, at Francisco Madero, west of the road from Palenque to Ococingo, about 30 km south of Palenque, Mexico, 21 Apr 1987, I. Kranz, E. Sosna, R. Stawikowski & U. Werner.

Paratypes: ZFMK 15502–15505 (4), 60.5–66.6 mm, same data as holotype.

Theraps rheophilus Seegers & Staack, 1985
Aquat Terrar Z 38: 500

Holotype: ZFMK 13928 (1), probable male, 88.7 mm, Chiapas, 6 km south of Palenque, under the bridge of the road to Ococingo in Chiapas, Río Notutun, Mexico, 2 Apr 1983, L. Seegers & W. Staack.

Paratypes: ZFMK 13929–13930 (2), 76.5–84.1 mm, same data as holotype.

Type material in other collections: Paratypes: NRM 17598 (2); NMW 81184 (2); all same data as holotype.

Current status: Synonym of *Theraps lentiginosus* Steindachner, 1864 (Kullander in Reis et al. 2003: 643).

Tilapia eisentrauti Trewavas, 1962
Bonn zool Beitr 13: 168

Paratypes: ZFMK 732 (1), female, Lake Barombi-ma-Mbu, Cameroon, 1954, M. Eisentraut.

Type material in other collections: Holotype, male, 65.0 mm, and paratype, female, BM 1961.10.18.11–14.

Remarks: Type species of *Konia* Trewavas, 1972.

Current status: Valid as *Konia eisentrauti* (Trewavas, 1962) (Teugels 1991: 206).

Uaru fernandezyepezi Stawikowski, 1989
Bonn zool Beitr 40: 21

Holotype: ZFMK 15757, 180 mm, branch of Río Atabapo, 5 km upstream of its mouth into the Río Orinoco, Venezuela, 29 Apr 1988, H. J. Köpke.

Paratype: ZFMK 15758 (1), 169 mm, same data as holotype.

ELEOTRIDAE

Mogurnda pulchra Horsthemke & Staack, 1990
Aquat Terrar Z 43: 160

Holotype: ZFMK 16247: female, 60.3 mm, small river in the drainage basin of the Brown River, at the Hiritano Highway, 24 km north of Port Moresby, Papua New Guinea, about 09°16'S 147°14'E, Jul 1988, W. Staack.

Paratypes: ZFMK 16248–16251 (4), 22.0–58.1 mm, same data as holotype.

GOBIIDAE

Knipowitschia cameliae Nalbant & Otel, 1995
Ocrot Nat Med Inconj Bucuresti 39: 51

Paratypes: ZFMK 22151–22152 (5), 1 adult or subadult and 4 very small specimens, small lake in sand spit, 1 km north of Portita lighthouse, between Lake Golovitsa and Black Sea, Portita, Dobrogea, Romania, 8 Jun 1994, Nalbant & Otel.

Type material in other collections: Holotype: IBTS 4587, same data as ZFMK 22151–22152; Paratypes: IBTS 4586 (30), IBTS 4588 (6), ICDD uncat. (54), MGAB uncat. (51).

Remarks: ZFMK 22151–22152 are out of IBTS 4588.

OSPHRONEMIDAE

Betta climacura Vierke, 1988
Das Aquarium 22: 336

Holotype: ZFMK 15532, male, 66 mm, small clearwater brooks about 60 air-miles southwest of Brunei, near Ram-payoh, West Borneo, Jul 1983, T. Schulz.

Paratype: ZFMK 15533 (1), female, 65 mm, same data as holotype.

Current status: Synonym of *Betta akarensis* Regan, 1910 (Kottelat et al. 1993: 161).

Betta persephone Schaller, 1986
Aquar Terrar Z 39: 298

Holotype: ZFMK 14226, male, Asian highway no. 2, 3 km north of Ayer Hitam, Malaysia, 20 Feb 1985, D. Schaller.

Paratypes: ZFMK 14227–14238 (12), same data as holotype.

Type material in other collections: ZMB 31614 (4); ZSM/CMK 5944 (4); same data as holotype.

Betta tussya Schaller, 1985
Aquar Terrar Z 38: 350

Paratypes: ZFMK 14224–14225 (2), about 77 km south of Kuantan at the road parallel to east coast, 17 km south of Pekan, about 1 km from sea, Pahang State, Malaysia, 1984, P. Nagy; ZFMK 14195 (1), male, 16 km south of Kuantan, Malaysia, 22 Feb 1985, D. Schaller; ZFMK 14196–14207 (12), same data as ZFMK 14195; ZFMK 14208–14212 (5), same data as ZFMK 14195.

Type material in other collections: Holotype: ZRC 38451 (ex ZSM 27336); Paratypes: ZSM/CMK 5945 (5); ZSM/CMK 6345 (11); ZMB 31607 (6); ZMB 31609 (1).

Remarks: Originally the specimen ZFMK 14195 was deposited as holotype by the author in Bonn, but it cannot be identical to the specimen which was characterized as

holotype by measurements in the original description because the ZFMK specimen is smaller. Nevertheless this specimen belongs to the series of paratypes.

Macropodus erythropterus Freyhof & Herder, 2002
Ichthyol Explor Freshwaters 13:162

Holotype: ZFMK 38945, 58.9 mm, stream at Quyet Tien, Quang Binh Prov., Vietnam, 17°11.54'N 106°37.53'E, 8 Apr 2000, J. Freyhof & F. Herder.

Paratypes: ZFMK 38946–38961 (16), 23.7–57.3, same data as holotype; ZFMK 38962–38973 (12), stream at Lê Ninh, Quang Binh Prov., Vietnam, 17°14.12'N 106°37.51'E, 8 Apr 2000, J. Freyhof & F. Herder; ZFMK 35462–36465 (4), stream at Lê Ninh, Quang Binh Prov., Vietnam, 17°13.16'N 106°39.08'E, 8 Apr 2000, J. Freyhof & F. Herder.

Remarks: Winstanley & Clements (2008) were not able to follow unambiguously the diagnostic colour characters used by Freyhof & Herder (2002) for discriminating *M. erythropterus* from *M. spechti*, and suggested that *M. erythropterus* constitutes a junior synonym of *M. spechti*. As their analyses did however (i) not incorporate material from the terra typica (streams Quyet Tien and Lê Ninh, Quang Binh Province, Vietnam), (ii) were based on only limited numbers of obviously mostly immature specimens ($N_{\text{total}} = 22$ ex., without reference to maturity or sex; $SL_{\text{max}} = 42.3$ mm SL; four sampling locations incorporated: AK 27598, 6 ex.; 13.7–38.0 mm SL; AK 27599, 3 ex., 19.1–26.0 mm SL; AK 27600, 3 ex., 26.0–34.1 mm SL; AK 27601, 10 ex., 26.5–42.3 mm SL; compare the sizes of specimens examined by Freyhof & Herder (2002) as listed above), and (iii) covered only locations from a part of the species distribution (only locations in the Quang Tri Province in Vietnam), we argue that this conclusion is premature. *Macropodus erythropterus* is, like many other teleost fish species, distinguished from other species of its genus mainly by colour characters present in adult specimens. As long as these are not incorporated properly in critical analyses, we consider the database for judging about species status insufficient. Hence, we suggest that *M. erythropterus* should be treated as valid species.

Parosphromenus nagi Schaller, 1985
Aquar Terrar Z 38: 302

Lectotype: ZFMK 14186, Asian highway route 18, 16 km south of Kuantan, Malaysia, 22 Feb 1985, D. Schaller.

Paralectotypes: ZFMK 14187–14191 (5), same data as lectotype.

Type material in other collections: Paralectotypes: ZMB: 31605 (2); CMK 5949 (2).

Remarks: In Schaller's description the animals were still alive; later Schaller deposited the ZFMK specimens as holotype and paratypes. In the original description no holotype was mentioned, so that all specimens are considered as syntypes (Schaller & Kottelat 1990). Schaller and Kottelat (1990), designated a lectotype, the remaining syntypes became accordingly paralectotypes.

CHANNIIDAE

Channa bleheri Vierke, 1991
Das Aquarium 25 (No. 259): 22

Holotype: ZFMK 16555, male, 109 mm, in muddy remains of pools of river beds which are dried out during the dry season, upper Diburu near Gujam, Assam, India, 12–13 Nov 1987, H. Bleher & D. Nopak.

Paratype: ZFMK 16556 (1), female, 82 mm, same data as holotype.

Acknowledgements. We are grateful to Mario Milanovic for assistance in assembling catalogue data.

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Bonn zoological Bulletin (BzB)

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The **Bonn zoological Bulletin** (BzB), formerly “Bonner zoologische Beiträge”, is an international, peer-reviewed, open access journal publishing original research articles, reviews, and scientific notes dealing with organismal zoology. Focus of the BzB are (1) taxonomy, (2) systematics and evolution, and (3) biodiversity and biogeography, all with respect to terrestrial animals. Terrestrial animals as understood here include those inhabiting fresh or brackish waters. Contributions from related fields like ecology, morphology, anatomy, physiology or behaviour are welcome when of clear relevance to the focus topics.

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Parenti RP (2008) A phylogenetic analysis and taxonomic revision of ricefishes, *Oryzias* and relatives (Belontiiformes, Adrianichthyidae). Zoological Journal of the Linnean Society 154: 494–610

Sullivan J (1994) *Bufo boreas*. In: Fire Effects Information System (U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory). Online at <http://www.fs.fed.us/database/feis/animals/amphibian/bubo/all.htm> last accessed on December 28, 2009

Sztencel-Jablonka A, Jones G, Bogdanowicz W (2009) Skull morphology of two cryptic bat species: *Pipistrellus pipistrellus* and *P. pygmaeus* – a 3D geometric morphometrics approach with landmark reconstruction. Acta Chiropterologica 11: 113–126

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Picus (Dendrocopos) canariensis Koenig, 1889 (= *Dendrocopos major canariensis* (Koenig, 1889)),
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